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A. L. Penn.

THE

MEDICAL AND SURGICAL COMPANION.

FOR THE USE OF

FAMILIES, SEAMEN, TRAVELLERS, MINERS, &c.

GIVING

A BRIEF DESCRIPTION, IN PLAIN LANGUAGE, OF THE DISEASES OF MEN, WOMEN, AND CHILDREN.

WITH

THE MOST APPROVED METHODS OF TREATING THEM.

BY

A. I. FENN, M. D.,

FELLOW OF THE MASSACHUSETTS MEDICAL SOCIETY.

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PREFACE.

It will be well to remark, in presenting this book to the public, that it is not designed to *supersede* the attendance of a physician, in cases of disease, accident, &c., but as a work which can be used as a guide, when persons are in any way so situated that they cannot readily obtain the services of a medical man.

Families, seamen, travellers, miners, and others, who are often unable, for days, and in some cases even weeks, to obtain the aid of a physician, need some book to which they can refer for advice and guidance, in cases of sudden illness or accident.

All persons should possess a knowledge of what is most proper to be done in cases of accident, drowning, hanging, poisoning, bleeding, &c.; for a person's life, in such instances, often depends upon what is done *on the instant*, and before a physician can possibly be called. In preparing this volume I have consulted many works of authority, appropriating whatever seemed to me of

value; and have endeavored, within as small a compass as convenient, and in as plain a manner as possible, to lay down such rules, and give such directions, as will enable every one who reads them, to adapt to his (or his friend's) case, the plan of treatment most proper for it.

Used for the purpose for which it is designed, I trust this book will do no harm, but much good, and that it will become a welcome MEDICAL AND SURGICAL COMPANION to many.

A. I. FENN.

No. 90 AVON STREET, BOSTON, April, 1870.

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PART I.

PRACTICE OF MEDICINE.

CHAPTER I.

ON THE PRESERVATION OF HEALTH.

Cleanliness and Clothing.

In order to keep the body in a state of health, frequent bathing is requisite. In winter, once or twice a week will be sufficient; but in summer, when the body perspires much, it should be done oftener. A bowl of cool water, a little soap, a sponge, and coarse towel, are all the *essentials* for keeping the body in a cleanly condition, if they are properly used.

Under Garments should be changed at least once or twice a week in winter, and oftener in summer. All our clothing should be adapted to the climate, season of the year, and state of the weather.

Pure Air.

Pure air is essential to health, and all should see that the apartments in which they do business during the day, and in which they sleep, are well ventilated.

Food, Drink, Digestion, &c.

If you would keep your body in good condition, be tem-

perate both in eating and drinking. Only three meals a day should be taken, and the last at least three hours before retiring. The diet should consist of a proper admixture of animal and vegetable food, and its thorough mastication is essential.

Tea and Coffee may be taken in moderate quantities, if they do not disagree with you.

Alcoholic Liquors, taken daily, in health, are injurious to the system, and the less used the better. The same may be said of tobacco. Opium should *never* be used, except when prescribed by a physician.

Time required for Digestion.

The time required for digesting food, and for emptying the stomach of its contents, differs in different persons and circumstances. One kind of food is more easily dissolved than another; and some persons can digest any definite kind of food more readily than others; some are even oppressed by that which another digests with ease and comfort.

There is also a difference in regard to the digestive power in the same person in different states of health.

Dr. Beaumont's Observations.

A young soldier, Alexis St. Martin, had a hole through his side and into his stomach, in consequence of a gun-shot wound. Through this aperture the whole process and progress of digestion could be observed. Dr. Beaumont availed himself of this opportunity to learn the time required to digest various kinds of food, and to empty the stomach of its contents.

The following table, which is taken from a larger table in Dr. Beaumont's work, shows the time required by St. Martin for the digestion of the most common articles of diet. As the digestive power differs in different persons, this table must be received only as an approximation of the

average periods required for the digestion of these articles.

Articles.	Preparation.	Time. Hrs.	Min.	Articles.	Preparation.	Time. Hrs.	Min.
Apples, sour, hard, .	Raw,	2	50	Eggs, fresh, ...	Fried,	3	30
Apples, sweet, do. . .	Raw,	1	30	Fowl, domestic, . . .	Boiled,	4	
Beans, pod, ...	Boiled,	2	30	Lamb, fresh, ...	Broiled,	2	30
Beef, fresh, lean, rare,	Roasted,	3		Liver, beef's, fresh, .	Broiled,	2	
Beefsteak, ...	Broiled,	3		Meat, hashed with vegetables, ...	Warmed,	2	30
Beef, salted, old, hard,	Boiled,	4	15	Milk, ...	Raw,	2	15
Beets, ...	Boiled,	3	45	Mutton, fresh, ...	Roasted,	3	15
Bread, wheat, fresh, .	Baked,	3	30	Pork, fat and lean, . .	Roasted,	5	15
Bread, corn, ...	Baked,	3	15	Pork Steak, ...	Broiled,	3	15
Cabbage, with vinegar, ...	Raw,	2		Potatoes, Irish, . . .	Broiled,	3	30
Cabbage, ...	Boiled,	4	30	Potatoes, Irish, . . .	Roasted,	2	30
Cake, sponge, ...	Baked,	2	30	Rice, ...	Boiled,	1	
Cheese, old, strong, .	Raw,	3	30	Sausage, fresh, . . .	Broiled,	3	20
Chicken, full grown, .	Friedass'd,	2	45	Soup, beef, vegetables and bread, . .	Boiled,	4	
Codfish, cured, dry, .	Boiled,	2		Tripe, soused, ...	Boiled,	1	
Corn, green, and beans,	Boiled,	3	45	Turkey, domestic, . .	Roasted,	2	30
Custard, ...	Baked,	2	45	Turnips, flat, ...	Boiled,	3	30
Dumpling, apple, . .	Boiled,	3		Veal, fresh, ...	Fried,	4	30
Eggs, fresh, ...	Boiled,	3					

All persons should observe carefully the effects of various articles of food, as well as physic, upon their bodies, and choose those which experience proves to agree best with them. It is a vulgar, but sometimes true saying, that "what is one man's meat is another's poison."

Severe exertion of body or mind, immediately after a full meal, should be avoided. No man should put himself to the severe exertion of mowing grass, pitching hay, planing boards, or severe exercise of the muscular system of any kind, for about an hour after eating; and especially after dinner, which is generally the largest meal.

Labor.

A proper amount of labor, both physical and mental, is necessary to keep body and mind in a state of health; but excessive labor must be avoided. No one should exceed ten hours a day.

Rest.

A sufficient amount of rest or sleep is required, every twenty-four hours, to restore or refresh the nervous system.

The amount required varies, in different individuals, from seven to nine hours. It is well to have some regular time for retiring and rising. Children and youth who are growing, require, as a general rule, more sleep than adults.

Recreation and Amusements.

All persons require periods of relaxation and rest from the toils and cares of business, whatever it may be; and at such times, hunting and fishing excursions, picnics, sleigh rides, and plays and games which have no evil tendency, may be made profitable to health.

These occasional amusements are recommended, not for the mere pleasure they are adapted to give, but also for the purpose of recreating and preserving a healthy and vigorous state of the body and mind, which cannot always be done without these aids. Those persons especially who are devoted to constant mental labor, must have resort to some kind of mental relaxation, or their constitutions will suffer loss: the mind cannot bear to be kept constantly on the stretch of exertion; it will soon lose its elasticity and power, and the body give way.

HINTS TO TRAVELLERS IN HEALTH.

Flannel.

The sudden changes of the weather, which so particularly characterize the climate of the United States, render a supply of flannel, to be worn next the skin, a matter of much consequence to the health and comfort of the traveller, who is more exposed than others to the morning and evening damps, as well as the meridian heat.

As a general preservative of health, there is no habit more valuable than this. The garments for summer wear may be lighter than those for winter, but travellers should never leave off flannel entirely during any season of the year.

Beds.

Travellers should examine closely the beds in which they are to sleep, and should be satisfied that they are clean; for by sleeping in dirty ones, many troublesome and disgusting diseases of the skin may be contracted. It is better to sleep on the floor, with only your overcoat around you, than to sleep in a filthy bed.

Water.

Change of water is apt to produce some little disturbance of the bowels; and when this is the case, a little spirit, or essence of peppermint mixed with it, may prove beneficial.

Cold.

To prevent as much as possible any danger from frost, while travelling in excessively cold weather, having well cased your whole body (and feet in particular) in warm clothing, avoid approaching the fire, and the use of spirits or hot drinks of every description. When you stop on the road, instead of seating yourself by the fire and calling for liquor, walk about in the open air as rapidly as possible; and if you are thirsty, take a glass of cold water or milk, and partake of as much substantial food as the system requires, three times a day.

Three men once set out from Boston for Canada East, during the middle of a very severe winter, each one in his own sleigh. Two of them were in the habit of stopping at every hotel they came to, and drinking freely of liquor; the other never entered a house, except for his meals or to sleep. While his horse rested he stretched his limbs, and when he was thirsty he partook of the same element with his beast. The consequence of this was, that out of the three, he was the only one who arrived at his journey's end uninjured. One of his companions had his feet so badly frozen, that he lost them both, and the other was taken out

of his sleigh at the door of a hotel, where his horse naturally stopped, *frozen to death.*

If, notwithstanding all your care, you become much affected with the cold, *beware of going to sleep.* No matter how strong the inclination may be, *resist it for your life; it is the sleep of death!*

☞ Never let false delicacy, or any other cause, prevent you from emptying the bladder as often as you feel the inclination; a painful and lingering, sometimes an *incurable* disease arises from neglecting this call of nature.

The bowels should move at least once in twenty-four hours; and the *habit* of attending to this demand of nature at some particular time in the day, as after breakfast or supper, will do much towards keeping them in good condition.

HINTS TO INVALIDS TRAVELLING.

Although the preceding advice or directions apply to all travellers, sick or well, they should be more particularly studied and observed by invalids, who, while travelling by land, either for the restoration of their health, or from necessity, will find it well to observe the following rules: —

Rule 1.

Never commence your journey in the morning until you have breakfasted and emptied the bowels, or endeavored to do so. To obtain the wished-for result, make it a regular practice to solicit the evacuation directly after your meal.

Rule 2.

During the summer never pursue your journey, if you can avoid it, in the heat of the day. It is better to borrow an hour or two from the morning, and one from the evening, than to risk the excitement liable to be produced by a broiling sun.

Rule 3.

Make short stages, always remembering that exercise should never be pushed to fatigue; the latter is as injurious as the former is beneficial.

Rule 4.

Always carry a piece of good rhubarb in your pocket, and, if costive, chew a portion of it during the day, and swallow the saliva.

Laudanum and essence of peppermint it is always well to have at command.

Rule 5.

Be careful to have no ligatures about your body. Cravat and "elastics" should be loosely fastened, and let all your clothing be easy. The flannel shirt is indispensable.

Rule 6.

Always carry with you an ample overcoat or cloak; early in the morning and in the evening, even of summer days, you may find occasion to use it with pleasure and profit.

Always have a complete suit of winter clothing in your trunks, although you be travelling in the month of July. If the weather becomes cool, on with your woollens, stockings included. Inattention to the simple rule of adapting the clothing to the temperature of the air in its extreme changes kills thousands yearly.

Rule 7.

Never hesitate a moment to comply with the calls of Nature: much mischief is occasioned by deferring these evacuations. It is better to be accused of a want of delicacy than to have a suppression of urine, or a fever and headache.

Rule 8.

This is a "golden rule," and is of high authority: —

Keep your body open, your feet dry and warm, and your head cool.

MEDICINES.

Persons travelling by land or sea, and whether sick or well, should have a few medicines with them to use in cases of sudden attacks of illness.

A few well-selected and well-understood medicines will be far better than a large number, the uses of which are not well understood by those having them.

I will mention only a few which will be found most useful.

Laudanum. (Tincture of Opium.)

This may be used to relieve pain and promote sleep. The ordinary dose for an adult is twenty-five drops. It should not, as a general rule, be repeated oftener than once in three to six hours, and not then unless really required. In cases where there is severe pain, thirty to forty drops may be required to give relief.

A youth of fourteen years will require about half as much as an adult; a child of four years, three to five or six drops.

Paregoric. (Camphorated Tincture of Opium.)

This preparation is used for the same purposes as Laudanum, but is better adapted to young children.

A child three to six months may take .	3 to 5 drops.
" from six months to one year, .	5 to 10 drops.
" from one to two years, . .	10 to 15 drops.
" from two to four years, . .	15 to 30 drops.

These preparations should only be used when absolutely required to relieve pain or promote sleep.

Essence of Peppermint.

Useful in cases of wind in the bowels (flatulency), and as a stimulant in cases of faintness.

Dose for an adult, one teaspoonful; children in proportion to age. A little laudanum or paregoric may sometimes be added to advantage.

It may be given in a little warm water, sweetened or not, according to preference. It may be repeated as occasion requires.

Powdered Ipecac.

This is an *emetic*, and may be used to throw off indigestible food, and may sometimes be of advantage in the early stage of fever.

Dose for an adult, ...	20 grains.
" for a youth of fourteen years, .	15 grains.
" for a child of three to six years, .	3 to 8 grains.

It may be mixed with molasses, or sugar and water. After waiting a few minutes, drink freely of warm water, or some warm bitter herb tea, until free vomiting takes place.

Wine of Ipecac.

This may be used for the same purpose as the above, also in teaspoonful doses as an expectorant in bronchitis.

Dose for an adult, as an emetic, one ounce. For children, one to two teaspoonfuls may be given, and repeated every ten or fifteen minutes, until vomiting takes place. Warm water may be freely taken until it operates.

Compound Cathartic Pills.

An excellent purgative. Dose for an adult, two to three.

Castor Oil.

Dose for an adult, as a purgative, one ounce. For children, one teaspoonful to a tablespoonful. This is a mild

and excellent purgative, and may be used in cases where more powerful cathartics would be objectionable.

Tincture of Rhubarb.

An excellent and common purgative. Dose, from an ounce to an ounce and a half.

Adhesive Plaster.

This is often of use, and no family or traveller should be without a good supply for dressing cuts, wounds, &c.

Simple Ointment.

Useful in dressing burns, scalds, sores, and wounds.

Glycerine.

Excellent for chapped hands, excoriations, &c.

Anodyne Liniment.

Take of

Laudanum, ...	½ ounce.
Tincture of arnica, ...	1½ ounce.

Mix, and mark LINIMENT.

An excellent preparation for sprains, bruises, &c.

Brandy.

A little brandy is never out of place in a traveller's trunk, providing he will only use it when necessary *as a medicine* to relieve sudden faintness or great prostration from accident or sickness.

The amount taken at a time should not, as a general rule, *exceed* one to two tablespoonfuls.

MEASURES.

Apothecary's Weights and Measures.

The weights accompanying apothecary's scales are thus marked: —

℥j	for one ounce,	equal to 8 drachms.
℥ss	" half an ounce,	" 4 "
℥ij	" two drachms,	" 120 grains.
℥j	" one drachm,	" 60 "
℥ss	" half a drachm,	" 30 "
℈j	" one scruple,	" 20 "
℈ss	" half a scruple,	" 10 "

The thin grain weights are marked, exclusive of the stamp, with a peculiar round mark or dot for each grain.

Fluid or Wine Measure.

The graduated glass measures used by apothecaries in measuring fluids are marked with the ℥ (ounce) and ℥ (drachm) signs.

The pint or pound contains	16 ounces.
The ounce "	8 drachms.
The drachms "	60 to 120 drops

Domestic Measure.

A small teacup is considered equal to	4 fluid ounces, or 1 gill.
A wineglass,	2 "
A tablespoon,	½ "
A teaspoon,	1 fluid drachm.

The Doses of Medicine adapted to Different Ages.

For an adult, suppose the dose to be one, or 1 drm., equal to 60 grs.

Patients of	1	year	will require only	$\frac{1}{12}$,	or 5 grains.
"	2	years	" "	$\frac{1}{8}$,	or $7\frac{1}{2}$ "
"	3	"	" "	$\frac{1}{6}$,	or 10 "
"	4	"	" "	$\frac{1}{4}$,	or 15 "
"	7	"	" "	$\frac{1}{3}$,	or 20 "
"	14	"	" "	$\frac{1}{2}$,	or ½ drachm.
"	20	"	" "	$\frac{2}{3}$,	or 2 scruples.
Above	21	"	" "	one,	or 1 dr., the adult dose.

Persons above sixty-five years require the dose to be diminished as they grow older.

Women, as a general rule, require only about three fourths as much as men.

In the same manner for fluids, divide the quantity suited for an adult by the above fractional parts.

Opiates affect children more powerfully than adults, and must be used with caution.

Habit has an important influence on the operation of medicines. In general, habit diminishes the effect resulting from the action of external powers on the system; hence medicines lose power by being continued. This is particularly the case with stimulants and narcotics, and the doses of them, therefore, require to be increased when their use is protracted.

When *doses* have been mentioned in this work, they have been for *adults*, unless otherwise stated.

BLOOD-VESSELS.

There are two kinds of blood-vessels in the body — arteries and veins. The arteries carry the blood from the heart to the extremities of the body, where they are connected with the veins, which bring it back again.

The Pulse.

The pulse is the beating of an artery, which is a vessel conveying blood from the heart. Every time the heart contracts, a portion of blood is forced into the arteries, which dilate or swell to let it pass, and then immediately regain their former size, until, by another beat of the heart, a fresh column of blood is pushed through them, when a similar action is repeated. This swelling and contracting of the arteries, then, constitute the pulse, and consequently it may be found in every part of the body where those vessels run near enough to the surface to be felt; but, from motives of convenience, physicians usually look for it at the wrist.

The strength and velocity of the pulse vary much in different persons, even in a state of perfect health. It is much quicker in children than in adults, and in old persons it grows more slow and feeble, owing to the decreased energy of the heart.

In children under four years of age it generally exceeds one hundred beats per minute. In the adult male it may be stated at about seventy, and in the adult female at about eighty.

The pulse is increased both in strength and velocity by running, walking, jumping, and riding; also by eating, drinking, singing, speaking, and by joy, anger, &c. It is diminished in like manner by rest, fear, melancholy, want of nourishment, excessive evacuations, or whatever tends to debilitate the system. The temporary excitement often caused by the approach of the physician to the bedside causes increased rapidity of the pulse, for which due allowance should be made, or, what is better, we should wait a few minutes, until the excitement has ceased.

A full, tense, and strong pulse is when the artery swells boldly under the finger, and resists its pressure more or less; if, in addition to this, the pulsation be very rapid, it is called quick, full, and strong; if slow, the contrary.

A hard, corded pulse is that in which the artery feels like the string of a violin, or a tightened cord, giving considerable resistance to the pressure of the finger.

The soft and intermitting pulses are readily recognized by their names. In cases of extreme debility, on the approach of death, and in some particular diseases, the artery vibrates under the finger, like a thread. In feeling the pulse, two or three fingers should be laid on at once. As already mentioned, the most convenient spot to do this is at the wrist; but it can be done readily on the temple — just before and close to the ear, in the bend of the arm, and on the top of the foot.

GENERAL RULES TO BE OBSERVED IN THE TREATMENT OF DISEASES.

Rule 1.

In every complaint, whatever it may be called, if you find the pulse quick, hard, full, and strong, tongue foul, skin hot, pain in head, the proper course is to keep the patient quiet, and on a low diet, with cold water or lemonade for drink. A smart purgative may also be administered.

Rule 2.

If, on the contrary, the pulse be small, soft, feeble, and intermitting, the tongue dark, and great debility or weakness is evident, *reverse the whole plan;* the diet must consist of milk, strong beef-tea, or essence of beef, the bowels opened with *gentle* laxatives, — such as a small dose of castor oil, or a Rochelle powder, — and the strength supported by wine, brandy, quinine, &c.

Rule 3.

Incessant and earnest entreaties, on the part of the sick, for any particular article of diet or drink, *if steadily persevered in*, may be indulged to a proper extent, whether the use of it agrees or not with our preconceived ideas on the subject.

Rule 4.

In all fevers, where the pulse is quick, full, and strong, the skin hot and dry, sponging the whole body of the patient, once or twice a day, with warm water, will prove beneficial. The patient should always be wiped dry. The addition of a little bicarbonate of soda to the water, every second day, is advisable. A tablespoonful to a pint will be sufficient.

Rule 5.

The Sick Room.

The sick room should be of good size, away from noise, and from the odors of the kitchen. It should be kept clean, of proper temperature, and well ventilated. A plenty of fresh air is an important remedial agent in all diseases. The excretions of the patient should be removed as soon as passed, and his clothing and the bedding require frequent changing.

Rule 6.

The Nurse.

If a nurse is employed, be sure that she is a woman of good sense, good disposition, temperate, kind, attentive to her duties to the patient, and one who will *carry out the instructions of your physician.*

A nurse who is continually neglecting the physician's orders, or questioning his judgment in regard to the management of the case, and perhaps trying to get the patient placed under the care of another physician, for whom she has a predilection, is unworthy of confidence or trust, and the sooner discharged the better for all concerned.

CHAPTER II.

FEVERS.

OF FEVER IN GENERAL.

In a work of this kind, I believe it is a matter of little consequence with what particular complaint we begin, since each one is to be described; therefore I will commence with *fever*, which arises from the contamination of the blood by some morbific agent, and is by far the most common disease to which the human body is subject. It is indicated by a hot, dry skin, rapid pulse, thirst, loss of appetite, weakness, and inability to sleep. It makes its appearance in two ways, — either suddenly and violently, or gradually and gently. When it comes on in the first manner, it is attended with chills, or a cold shaking, nausea or vomiting, pain in the head, &c. When its attack is gradual, a feeling of soreness over the whole body — such as is experienced after a hard day's work, by one not accustomed to it — indicates its approach. Nausea, pains in the head, and more or less heat and thirst, soon follow. As those symptoms vary infinitely in their degrees and violence, the vigor of treatment to be pursued must differ accordingly.

Fever produces a general disturbance, visible throughout the whole system.

I will now proceed to consider the different varieties of fever, and will take them up in the following order: —

1. Simple Inflammatory Fever.
2. Intermittent, or Fever and Ague.
3. Remittent Fever.
4. Yellow Fever.
5. Typhoid Fever.
6. Typhus Fever.

7. Hectic Fever.

8. Eruptive Fevers, — Small Pox, Chicken Pox, Measles, and Scarlet Fever.

Continued fever is so termed from the fact that it pursues its course without any well-marked remissions.

Simple inflammatory fever, typhoid fever, and typhus fever, are called *continued fevers*.

SIMPLE INFLAMMATORY FEVER (*Febricula*).

Simple Inflammatory Fever usually makes its invasion abruptly, and the patient will generally have some irregular chilly sensations, a rapid pulse, hot skin, thirst, loss of appetite, headache, constipation, scanty and high-colored urine, &c. The febrile career usually ends suddenly, after one, two, or three days, the limit of the duration being ten days.

CAUSES. Among the causes may be mentioned exposure to cold, violent exercise, exposure to the sun's rays, intemperance, the indulgence of unruly passions, &c.

Distinguish it from typhoid fever by the strength and hardness of the pulse, white tongue, and high-colored urine.

TREATMENT. Rest in bed, open the bowels with a dose of Epsom salts, and if the skin be very hot, and there is much thirst, give a teaspoonful of R. 21 in a wineglass of water every fourth hour. Half a teaspoonful of sweet spirit of nitre will answer very well, if you do not have this mixture at hand. In some cases, where the fever runs very high, the dose may be repeated every second or third hour. Soaking the feet in hot water, and applying cloths wet with cold water, or spirit and water, to the head, will prove beneficial in all cases, especially if there is much headache.

For nourishment, the patient may take oatmeal or Indian meal gruel, and milk. For drink he may take cold water or lemonade.

The apartments in which fever patients are sick should be kept quiet, clean, well ventilated, and a little darkened; and every source of excitement should be avoided.

INTERMITTENT, OR FEVER AND AGUE.

There are several varieties of this fever, differing from each other only in the length of time that elapses between their attacks. When a paroxysm occurs every twenty-four hours, it is called *quotidian;* when every forty-eight hours, it is designated *tertian;* and when the interval lasts seventy-two hours, it is termed *quartan.*

Symptoms. The disease commences with yawning, stretching, and uneasiness, succeeded by slight chills or shiverings, which end in a violent convulsive shaking of the whole body. This is called the cold fit or stage, and is immediately followed by the fever, or hot stage. The pulse then rises, the skin becomes hot, there is pain in the head, a white tongue, and all the marks of fever, terminating in a profuse sweat, which gradually subsides, leaving the patient in his natural state, though somewhat weakened.

Causes. Marsh miasmata, or the effluvia from vegetable matter, in a state of decomposition; also, the effluvia arising from certain soils impregnated with moisture, but *apparently* free from vegetable decomposition.

Treatment. If the bowels are constipated, give two or three compound cathartic pills, and then commence giving R. 146, in teaspoonful doses, every hour, the first dose to be given six hours before the expected paroxysm, or chill. When the medicine begins to cause ringing in the ears, it may be omitted for a time. If another paroxysm occurs it may be resumed. The medicine is *not to be given during the paroxysms*, but *between them.* After the paroxysms have been interrupted, the remedy should be taken, three or four times a day, for a considerable period.

During the *cold stage* of this fever warm drinks may be administered, and warm bricks or bottles of hot water placed to the feet and sides.

During the *hot stage*, relief may be procured by sponging the body with cold or tepid water, and partaking of cooling drinks, lemonade, &c.

During the *sweating stage*, comfort is promoted by wiping the body with warm flannel, and changing the linen and bed-clothes, taking due care to avoid exposure to cold.

REMITTENT FEVER.

This disease is known under different names, as Gastric Fever, Bilious Fever, and Bilious Remittent Fever. It is accompanied by distinct exacerbations of variable duration and severity, but without any complete intermission, such as we have in intermittent fever.

Symptoms. There is tenderness of the epigastrium, or pit of the stomach, and some irritation of that organ; and yellowness of the skin, and bilious vomiting, are generally present in a greater or less degree.

Diarrhœa is sometimes present, while in other cases the bowels are obstinately constipated. The tongue is either remarkably clear, or covered with a thin fur, or redder than natural at the tip and edges.

The pulse ranges from ninety to one hundred and twenty. Head symptoms are not very common, but when they do occur, the patient is not often delirious, but melancholy.

In the Remittent Fever of hot climates, the symptoms of gastric irritation and bilious disorder are more strongly marked, and violent delirium, with intense thirst and great heat of skin, often shows itself at an early period.

The duration of this fever is from one to four or five weeks. It may be distinguished from the *intermittent*, or *fever and ague*, by the incomplete intermission; from *contin-*

ued fever, by the occurrence of intervals of comparative freedom from fever.

Treatment. If the bowels are constipated, give a cathartic composed of eight grains of calomel and twelve of jalap. If there is great heat of skin, the surface of the body may be bathed once or twice a day with cool or moderately warm water, into which may be put a little bicarbonate of soda.

Cold water, toast water, barley water, or lemonade, may be drank to allay thirst. Should there be much tenderness at the pit of the stomach, with some vomiting, a mustard poultice placed over that region will generally prove beneficial. It should be kept on as long as it can be conveniently borne, and when removed, hot fomentations may be substituted. When the headache is severe, cold water may be freely applied to it, and warmth to the feet.

When the fever runs high, a teaspoonful of R. 21 may be taken in water three or four times a day. If this mixture is not at hand, half a teaspoonful of sweet spirit of nitre three or four times a day may be substituted. If the patient does not rest well, ten grains of Dover's powder may be given at night to promote sleep.

During the remissions, or when the patient is comparatively free from fever, give a teaspoonful of R. 146, every hour, as in fever and ague, until slight ringing in the ears is experienced, when it may be omitted. If another paroxysm occurs, it may be resumed. After the paroxysms have been interrupted, the remedy may be taken three times a day for a week or two. It should never be given during a paroxysm of fever. For diet; gruel, milk, &c.

YELLOW FEVER.

Yellow fever is a disease of warm climates, and depends upon a special cause. It occurs mostly during the summer months, and ceases on the appearance of frost. It occurs

chiefly in towns along the seaboard, or upon streams which empty into the ocean.

Symptoms, &c. The striking features of this fatal disease, in addition to the general fever, are the yellowness of the skin; severe headache, referred to the forehead and bottom of the orbit; mental and bodily prostration, and great irritability of the stomach, — the matter vomited being at first slimy and tasteless, but gradually assuming the appearance of coffee-grounds, when it is called the *black vomit*. The dejections generally have a tarry appearance. There is often suppression of urine. The usual duration of the disease is from three to seven days. When the sixth day elapses without the appearance of *black vomit*, or suppression of urine, there is great hope of recovery. Death, when the disease proves fatal, usually occurs from exhaustion. The special poison of yellow fever appears particularly to affect the liver.

Treatment. The indications for treatment are not very prominent, but urgent symptoms should be treated as they present themselves. If the bowels are constipated, give five grains of calomel with fifteen of jalap, to move them. If the fever runs high, give half a teaspoonful of sweet spirit of nitre, in a little water, every third or fourth hour. If there is much headache, apply cold water to the head and warmth to the feet. If the stomach is very irritable, apply a mustard poultice, followed by hot fomentations, over that organ, and let the patient swallow, occasionally, small pieces of ice.

If there is much prostration, half a teaspoonful of the tincture of the chloride of iron, in a wineglass of water, every second or third hour, will generally prove beneficial. In some cases of great prostration, stimulants do good.

The apartment should be kept well ventilated, and all excrementitious matters promptly removed.

TYPHOID FEVER.

This is a *slightly* infectious and contagious fever, and, being most prevalent in autumn, is known in some parts of this country as the *autumnal* or *fall fever*. Persons between the ages of twelve and thirty years are most subject to it. It attacks all classes, rich and poor alike.

Cause. This is not definitely known; but it is most prevalent where we find pools of stagnant water, bad drainage, foul air, &c.

Symptoms. This disease is generally very insidious in its approach. There is a sense of weariness, languor, and general uneasiness, slight headache on rising in the morning, dulness of intellect, irregular flashes of heat or chilliness, slight acceleration of the pulse, furred tongue, and a disposition to diarrhœa. These symptoms may last from several days to a week or more, after which the disease is established by the occurrence of a chill, followed by the ordinary phenomena of fever. After the disease has become settled, the pulse ranges from ninety to one hundred and twenty, being generally higher in females than in males. As a general rule, the pulse is under one hundred per minute. There is pain in the limbs, back, and head, with a dull, heavy expression of the countenance, restlessness, bleeding from the nose, and yellow, watery diarrhœa.

As the disease advances, these symptoms become aggravated, the pulse increases in frequency, the skin becomes hot and dry, the tongue is parched, and becomes red at the tip and edges. There is pain in the right iliac region, with a gurgling sound upon pressure; tympanitis is also present, and there also frequently appear, about this time, symptoms of either bronchitis or lung fever (pneumonia).

About the seventh or ninth day, if the surface of the abdomen be carefully examined, there will be discovered upon it a number of small, round, red spots, called "rose-spots,"

which disappear temporarily upon pressure, and constitute a characteristic eruption. They are about one line in diameter, and are slightly elevated above the surface of the body. At the same time, or sometimes not until a week later, a crop of vesicles, called *sudaminæ*, may also be detected upon the neck and chest. The *rose-colored* spots are not met with in all cases.

In severe cases, about the middle of the second week, all the symptoms become aggravated, delirium supervenes, with ringing or buzzing sounds in the ears, followed by dulness of hearing, or deafness; the eyes are injected, the tongue becomes incrusted with a black coating, which often cracks and peels off, leaving the raw surface exposed, and the teeth are covered with sordes; the pulse becomes more frequent and feeble, and there is a low, muttering delirium, and sometimes twitching or spasm of the muscles. As the patient becomes more feeble, he slips down to the foot of the bed: there are involuntary evacuations, with hemorrhage from the bowels or other mucous surfaces.

If the disease is to terminate *favorably*, the symptoms abate, the countenance brightens, the tongue clears, the pulse lessens in frequency, and the evacuations become more healthy. If the tongue ceases to clear, and if it again becomes dry, it indicates an increase of intestinal disease.

There is scarcely an organ in the body which may not be, in this disease, the seat of some anatomical lesion; those which are most characteristic, however, are found in the intestines, and consist in the thickening, softening, and ulceration of the glands of Peyer.

Sometimes, in the course of the second or at the beginning of the third week, the patient is seized with intense pain in the abdomen, vomiting of green, bilious matters, a small, fluttering pulse, fainting, and coldness of the extremities. The cause of these symptoms is perforation of the intestine, and escape of its contents into the cavity of the abdomen, causing inflammation. It occurs most frequently in the mild forms of the disease, and is almost uniformly fatal.

This disease may be distinguished from others by the slowness and insidiousness of the attack, by the diarrhœa, the dusky hue of the countenance, the bleeding from the nose, the rose-colored eruption, the gurgling in the right iliac fossa, the tympanitis, the stupor and delirium, the appearance of the tongue, and, lastly, by the duration of the disease, and the peculiar musty smell when the skin is dry, and acid smell when it is moist.

Not even the mildest cases of this disease can be looked upon as free from danger; and, on the other hand, there is no condition so low, no symptom so fatal, that death should be considered inevitable. Among the most unfavorable symptoms are constant delirium, a belief on the part of the patient that nothing ails him, a sudden shifting of position on the elbows, deep coma, twitching and rigidity of the limbs, profuse diarrhœa, or bleeding from the bowels, &c.

Treatment. Most physicians of the present day regard this as a self-limited disease, and do not believe it can be *shortened* by treatment. It usually runs its course in about three weeks, when convalescence begins. It is only *slightly* contagious, and some physicians do not believe it is at all so. It is not often that those who take care of typhoid fever patients contract the disease, when they take proper care of themselves, are not too much deprived of rest, and keep the sick room well ventilated, and see that the patient's excreta are promptly removed. A little chloride of lime or chloride of soda, set in vessels about the room, is useful as a disinfectant.

The sick room should be of good size, well ventilated, and away from noise. No more persons should be allowed in the room than are necessary to take care of the patient. For nourishment, good milk may be freely drank. A cupful, or more, repeated every two hours, is better than a large quantity taken at longer intervals.

As drink to allay thirst, cold water, weak lemonade, or barley water, may be taken.

At the commencement of the disease, an emetic of ipecac may sometimes prove beneficial; but cathartics are seldom advisable, as there is usually a tendency to diarrhœa, which needs to be repressed rather than encouraged.

If the skin is hot and dry, half a teaspoonful of sweet spirit of nitre, or a teaspoonful of R. 21 may be given in a little water, two or three times a day, and the whole surface of the body may be sponged over once a day with R. 134, warm, after which it should be wiped dry.

If severe pain in the head and delirium are present, cold water, iced water, or cold spirit and water, freely applied, will be very beneficial.

If the patient is restless, and not inclined to sleep during the night, eight or ten grains of Dover's powder may be given.

If you have diarrhœa, either with or without hemorrhage from the bowels, give a powder of R. 72 twice or three times a day, to keep it in check.

Should the patient at any time become very much prostrated, a little wine, or brandy and water, may be given three or four times a day, and beef tea, or essence of beef, wine whey, or milk punch, given as occasion requires. The quinine mixture, R. 146, may also be given in teaspoonful doses, three or four times a day. It may be given in water, or added to the spirit.

During convalescence, greater care will be required than after other forms of fever; since any irritation applied to the cicatrizing or healing ulcers in the intestine will possibly affect them unfavorably, and re-excite that morbid action which may end in perforation of the bowels, and, consequently, death. The return to the usual diet must be very gradual, no solid food being allowed until the tongue has become clean and moist, the pulse soft, and till all feverish excitement has vanished; until which time, also, the patient should neither be allowed to leave his bed, nor even to sit up much in it.

I have dwelt at some length in treating of this fever, because it is a very common and serious disease. Always place the patient under the care of a regular physician, if one is to be obtained.

TYPHUS FEVER.

Under this head are usually classed *camp*, *jail*, and *ship fever*. It is eminently contagious and infectious; it often prevails epidemically, attacking individuals of all ages; and it is the accompaniment of destitution, being generated in over-crowded and ill-ventilated dwellings, ships, &c. Its duration is from fourteen to twenty-one days.

Of the nature of the disease little is known. The probability is, that a poison is absorbed, which at once depresses the powers of the nervous system, and vitiates the blood.

Symptoms. Before the attack commences, the patient is often low-spirited and languid, loses his appetite, and he feels ill without knowing why. At the same time there may be sharp pains in the head, back, loins, and lower extremities. A chill or violent shivering is often the immediate precursor of the disease; sometimes, however, the cold stage is so slight as scarcely to be noticed. When the fever is fairly established, it is generally well marked. The skin is hot and dry, and the heat is of a pungent, biting character. The pulse is full, frequent, and possessed of some degree of strength, but is easily compressed. The tongue is moist, and covered with a yellowish-white fur. Sometimes there is nausea and vomiting. The bowels are costive, and no stools are procured without medicine. The aspect of the patient is peculiar; the countenance is of a dusky hue, with injection of the eyes; the features are fixed and inexpressive, or expressive only of apathy and indifference.

In severe cases, as the disease advances, the symptoms augment in violence, the heat of the skin increases, the

pulse rises in frequency and diminishes in force, ranging generally from one hundred and twenty to one hundred and fifty, or one hundred and sixty. The respiration is frequent, and sometimes imperfect at the back and lower part of the chest. At a period ranging from the fourth to the eighth day, a peculiar eruption appears upon the surface, not confined, however, to any particular locality. It varies in color from a dusky reddish-brown to purple or black. It is not elevated above the surface, neither does it disappear upon pressure. The tongue becomes dry, brown, and cracked, and, along with the gums, is covered with sordes; the urine scanty and highly colored; the discharges from the bowels, when procured, black and offensive; a peculiar ammoniacal odor is exhaled from the body; the nervous system becomes more prominent; there is dizziness, confused vision, ringing in the ears, and sometimes deep stupor, which becomes characteristically more profound as the disease advances. Sometimes violent delirium takes the place of stupor; the patient is sleepless or restless, with the sensation of utter prostration and helplessness. Should no improvement take place, the disease passes on to the last stage — that of prostration. The patient lies insensible, or in a muttering delirium, with twitching of the tendons, hiccough, involuntary evacuations, and extreme insensibility of the surface, till at length death approaches silently and without violence.

Sometimes a critical discharge takes place from some organ, and the patient begins to improve; generally, however, by slow degrees, and under the influence of supporting treatment.

The duration of the disease varies; sometimes, in mild cases, terminating on the seventh day; sometimes running out to six weeks, or more. When fatal, death rarely occurs before the second week.

Treatment. A large, well-ventilated room, frequent changes of linen, daily bathing of the patient's body, re-

moval of all unnecessary carpets and curtains, and the immediate removal of all evacuations, are measures essential, both to mitigate the patient's disease, and to prevent it from infecting his attendants. Chloride of lime, or liquid chloride of soda, may be sprinkled about the room every day or two.

When this disease makes its appearance on shipboard, or in jail, or camp, free and thorough ventilation and cleansing should immediately be resorted to, and chloride of lime be sprinkled about in abundance.

No violent efforts should be made to cut this disease short, but the symptoms should be watched, and relieved as they arise. In the early stages, and in the whole course of mild cases, it is particularly necessary to beware of doing too much — of interfering too actively with Nature. We are able to treat, but cannot cure, these maladies, any more than we can cure small pox or measles; and therefore our aim must be to keep the patient alive until the fever poison has expended itself.

When the patient is seen early, an emetic may prove advantageous, and one ounce of wine of ipecac, with plenty of warm water, may be given for that purpose. Immediately after the operation of the emetic, a purgative, to thoroughly clear the intestines, will generally be useful.

The following drink generally proves serviceable in this disease: —

Take of	Diluted Hydrochloric Acid,	3 drachms.
	White Sugar, . . .	1 ounce.
	Water, or Barley Water .	1 quart.

Mix. Use as a daily drink.

As a change, plain water, barley water, lemonade, or toast water may be allowed.

The diet should be restricted to milk, farinaceous food, and thin broth, well salted. Tea and coffee, when they do not disagree, are considered useful by some.

As soon as the powers of life begin to fail, and there is a signal loss of strength, a dark-brown tongue, and a rapid, feeble pulse, a stimulating plan of treatment should be commenced. This consists in giving strong beef or chicken tea, with brandy and water. The brandy should be given in such quantities as the extent of prostration may demand. Two teaspoonfuls, or one tablespoonful, or two tablespoonfuls may be administered in water or beef tea, every two hours, or every hour, the effect produced being closely watched, and its repetition guided by such effect, remembering that severe febrile symptoms do not contra-indicate it. Most care is needed in the use of spirit when the urine is scanty, or when there is violent delirium, with throbbing pains in the head. A few doses, however, will show whether the delirium is increased or diminished by its use. When its frequent administration is called for, care must be taken not to allow the patient to sleep too long without it. One is naturally unwilling to rouse a patient who may have previously been without sleep for days, to give him his spirit and nourishment; but unless we do so at each appointed hour, he may awake, and pass into a state of fatal prostration.

When there are much general irritability and sleeplessness, in cases where there is no lung trouble, half a grain of extract of opium may be given every three hours until the patient is calmed. If there is much headache, cold water, or iced water, may be freely applied to the head.

After the first three or four days, the patient should not be allowed to use the night stool, or to get out of bed, but should be provided with a bed-pan, containing a little chloride of lime. The bladder ought to receive daily attention, lest there be retention of urine. Under this management the patient may often remain in a very precarious state for some days; but at last he will begin very gradually to recover, sleeping much as he improves. A teaspoonful of the quinine mixture R. 146, taken three times a day, with

a gradual return to solid food, will ultimately complete the cure.

During the whole course of the disease, no person should be allowed about the patient, except his attendants.

HECTIC FEVER.

This is a *remittent* fever, and generally depends upon some local source of irritation, especially if attended with an exhausting discharge, perhaps arising from the absorption of diseased secretions. It is in the advanced stages of consumption that hectic fever is developed in its most characteristic form. When abscesses are forming in the liver, hip-joint, &c., it usually occurs.

Symptoms. Chills, succeeded by flushes, terminating in a hot skin and frequent pulse, and these, by perspiration, constitute the paroxysm of hectic fever. There are usually two such paroxysms in the twenty-four hours. During the paroxysms the pulse is quick and frequent, ranging from ninety-six to one hundred and thirty, or even more; the urine is high-colored, and deposits a pink sediment; the cheeks have a florid, circumscribed redness; there is burning heat in the palms of the hands and soles of the feet. During the remission, the pulse is reduced in frequency, but seldom falls so low as in health. The appetite is not much impaired, and the tongue is clean, moist, and red. The patient rapidly loses flesh.

Treatment. This must depend on the disease of which the hectic fever is a symptom. If there is no apparent disease to produce the hectic symptoms, the treatment must be that of debility, and the quinine mixture (R. 146) will be an appropriate remedy. The general health should be improved in every way possible.

Variolous

Small Pox

Plate I

11th day

6th 8th

1st 3rd 5th 8th 14th 17th day

Progress of Vaccination

Progress of Small Pox

THE ERUPTIVE FEVERS.

These are diseases attacking a person, for the most part, only once, beginning with fever, and followed, after a short and nearly definite interval, by eruptions upon the skin.

They are, —

Small Pox, ...	Variola.
Chicken Pox, ...	Varicella.
Measles, ...	Rubeola.
Scarlet Fever, ...	Scarlatina.

SMALL POX.

This disease may be defined as a fever, commencing with lassitude, pain in the head and back, with more or less vomiting. On the *third day* from the commencement of the attack, an eruption of small, hard pimples begins to appear — first on the face, then on the neck and wrists, then on the body, and, lastly, on the lower extremities. In some instances it is accompanied by a similar affection of the mucous membrane of the nose and mouth. The pimples gradually ripen into pustules, the suppuration being complete by the ninth day, at which time the pustules break, and crusts or scabs form. In four or five days more these scabs begin to fall off.

Now, the severity of the disease always bears a direct relation to the quantity of the eruption. When the pustules are distinct, and not very numerous, the disease is milder than in the confluent form, in which they are very numerous, especially on the face, where they run together, so as to form almost a complete scab. The pustules attain their full size about the eighth day, when they have a round, whitish look, reminding one of a quantity of peas half embedded in the skin. About this time dark spots may be seen on

the pustules, and they soon break and discharge their contents; and these, drying on the surface, form crusts, which in a short time fall off, and leave the skin beneath of a dark-brown color, which gradually fades out. During the course of this disease, the face, hands, and limbs often swell considerably. The patient is convalescent about the seventeenth day. In the more severe cases, permanent white scars are left upon the skin of the face, and other exposed parts of the body.

The period occupied by the change from pimple to pustule is called the period of *maturation*. At different stages of this process, according to the amount of eruption, but generally as early as the eighth day, *secondary fever* sets in, characterized by extreme restlessness, sleepless nights, a frequent and quick pulse, scanty and high-colored urine, and frequently by delirium, especially at night.

Cause. A specific contagion, emanating from persons laboring under the disease, or from clothes, or other articles, worn or used by them. The disease manifests itself in about twelve days from the time of exposure.

Treatment. The less drugs are used in the management of small pox the bettter, since they will neither shorten the disease nor exert any favorable influence upon it. In the early stages the patient should be kept quiet in bed, in a well-ventilated room; his diet should consist of milk, arrowroot, gruel, or weak beef tea; he should be allowed plenty of lemonade, or barley water, or plain water; and when the skin is very hot, sponging the surface of the body with warm water will prove very refreshing. If the bowels are confined, a Rochelle powder, or a little castor oil, may be occasionally given; or if there be great irritability and nervousness, ten grains of Dover's powder at bed-time will do good; or if the maturation or filling out of the pustules goes on slowly, good broths, or beef tea, and small quantities of brandy, are indicated.

In treating the *secondary fever*, which, as before stated,

sets in about the eighth day, keep the bowels gently open by mild laxatives; administer five to ten grains of Dover's powder, if needful, once or twice a day, and support the system by a nourishing but digestible diet, such as strong beef tea, milk, the yolk of one or two eggs daily, &c. When there is great prostration, liberal and frequent doses of whiskey or brandy are demanded. To relieve the intolerable itching, sponge carefully with R. 134, warm. To prevent pitting, glycerine, sweet oil, or cold cream may be used. When the pustules have burst, some dry powder, as the oxide of zinc, or powdered starch, should be freely applied to absorb the matter.

VARIOLOID.

This is *small pox*, modified by previous vaccination, the vaccine disease affording complete protection to only about one half of those subjected to it. Varioloid is capable of producing genuine small pox in the unprotected. In some cases the fever alone exists; in others only an eruption going on to the fourth or fifth day, and then drying up. Its progress is always shorter, by several days, than small pox, and it is destitute of the characteristic odor of that disease. The treatment is the same as for mild cases of small pox.

KINE OR COW POX. (*Vaccinia.*)

The fatality of small pox has been very much diminished since the discovery of vaccination, by Dr. Jenner, towards the close of the eighteenth century. The disease was first noticed in the cow (whence its name), in which animal it appears in the form of small vesicles upon the teats. The matter taken from such vesicles, when introduced under the skin, sets up in the human system a very mild disease,

which is fully protective against small pox in one half the cases, and greatly modifies it in the other half. It is not now necessary to take this matter directly from the cow, but from some person who has the vaccine disease. The matter should be taken about the eighth day.

MODE OF PERFORMING THE OPERATION OF VACCINATION.

Two or three punctures should be made near each other, on the outside of one arm, about six or eight inches below the shoulder. The skin being made tense, a sharp lancet should be inserted obliquely downwards under the skin, so as to draw a single drop of blood. If the matter is taken directly from the arm of another child, the lancet should be dipped in the lymph of the vesicle, and then inserted in the punctures. If the matter is on quill points, it should be first moistened by the breath. If portions of crust or scab are used, they must be carefully crowded into the punctures.

On the second or third day small red spots appear, which gradually increase until they attain their full size, about the eighth day, from which time they gradually dry away, the crusts falling off about the fifteenth or twentieth day, leaving deep marks or indentations on the skin, of a circular form, with as many pits as there were cells in each vesicle.

Infants may be vaccinated at any time after the sixth week. Some have recommended the repetition of vaccination at intervals of a few years; and I regard this as a wise precaution. No treatment is required.

CHICKEN POX.

This is a trifling complaint, almost peculiar to infants and young children. It runs its course in about a week. The disease consists of an eruption of transparent vesicles sur-

rounded by a slight redness, commencing on the shoulders and breast, affecting the scalp, but often sparing the face. These vesicles form small scabs, which rapidly dry up; there is no constitutional disturbance of any importance, and the accompanying fever is slight. When the eruption is abundant, the body presents the appearance of having been exposed to a momentary shower of boiling water, each drop of which has caused a small blister. No treatment is necessary.

MEASLES.

The distinguishing characters of this disease are a continued contagious fever, accompanied by an eruption, and frequently attended with inflammation of the mucous membrane of the respiratory organs. The eruption usually appears about the fourth day. The period of incubation, or, in other words, the time which elapses between the period of infection and the appearance of the eruption, is from ten to fifteen days.

Symptoms. Very much, at first, like those of a common "cold," or catarrh. These are lassitude, shivering, fever; with affection of the mucous membrane of the throat, nose, windpipe, and bronchial tubes. There is also swelling of the eyelids, eyes suffused and watery, and intolerant of light; sneezing; dry cough, with hoarseness, and at times difficulty of breathing; drowsiness; great heat of skin; frequent and hard pulse.

When the eruption first appears, it consists of small circular dots, like flea-bites, which gradually coalesce into small blotches of a raspberry color; they present, often, a horse-shoe shape, and are slightly raised above the skin. The rash appears first on the forehead and face, and gradually extends downwards; it begins to fade on the seventh day, in the same order, and is succeeded by slight scaling of the cuticle, and great itching.

It is worthy of notice that the fever does not abate on the appearance of the eruption, as in small pox; nor does the severity of the attack at all depend upon the quantity of the rash. The contagion of measles is strong, but less powerful than that of small pox. It is mostly seen in children; but adults may have it, if they escaped in childhood.

The usual duration of the disease is from nine to twelve days.

The complications most to be feared in this disease are croup, bronchitis, and lung fever. The diarrhœa, which often sets in as the rash declines, is for the most part beneficial.

Treatment. Exposure to cold to be carefully avoided. The patient should be confined to bed in an apartment moderately warm. Low diet, mucilaginous drinks, laxatives, and mild diaphoretics, may be had recourse to. The following mixture may be given with advantage: —

Spirit of Mindererus, . . .	1 ounce.
Sweet Spirit of Nitre, . . .	2 drachms.
Paregoric, ...	2 drachms.
Syrup of Gum Arabic, . . .	½ ounce.

Mix. A teaspoonful may be given to a child six years old, every four or six hours. For others, let the dose be in proportion to age.

If croup, severe bronchitis, or lung fever arise, treat according to the rules laid down for treating those diseases.

SCARLET FEVER.

This is a contagious and infectious fever, accompanied by a scarlet eruption, or rash, upon the skin, which usually makes its appearance on the *second* day, and terminates in scaling of the cuticle. More or less soreness and swelling of the throat are also present in the larger proportion of

Plate 2

Measles

Scarlet Fever

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cases. The disease makes its appearance in four to six days from the time of exposure.

Symptoms. Chills, followed by a hot skin, rapid pulse, thirst, headache, nausea, and sometimes vomiting, restlessness, and sleeplessness. On the *second* day, in the greater number of cases, a bright scarlet rash is perceptible on the face, neck, and arms, whence it extends over the trunk and limbs. It generally begins to decline on the *fifth* day, and wholly disappears by the eighth day. Entire duration of the disease from eight to thirty days, or more.

Treatment. In *simple* scarlet fever, which is unaccompanied by throat trouble, very little treatment is required. The patient may be kept in doors for a few days, and allowed plenty of milk, arrowroot, &c. If very thirsty, a little plain water or lemonade may be given as often as occasion requires. Never allow the throat and mouth to become parched for want of water.

Towards the decline of the disease, the bowels may be moved by some mild purgative, as castor oil or magnesia. In a more severe form of the disease, accompanied with some soreness and swelling of the throat, great heat of skin, &c., the patient demands a little more attention; but in no case can we *shorten* the disease by treatment; we can, however, relieve urgent symptoms as they arise. When the heat of skin is great, sponging the surface of the body once or twice a day with warm water will prove beneficial, and the following mixture will tend to lessen the fever: —

Take of	Spirit of Mindererus, . .	1 ounce.
	Sweet Spirit of Nitre, . .	2 drachms.
	Syrup of Gum Arabic, . .	6 drachms.

Mix. Give half a teaspoonful to a teaspoonful, three or four times a day, to a child four to six years old.

For the throat trouble, one drachm of powdered chlorate of potassa may be dissolved in a pint of water, and a few

swallows taken every two or three hours. A flannel cloth passed several times around the throat *may* be of some advantage, and I believe a hot flaxseed poultice to the throat will, in some cases, prove serviceable. If there is much debility, a little wine or brandy may be given three or four times a day. The tincture of chloride of iron may be given after the fever has declined. For a child three or four years old, four drops may be given, in a little water, four times a day.

In *malignant* scarlet fever, all the symptoms are aggravated, and the throat trouble is *very severe*. The vital powers are so prostrated by the deadly force of the poison, that unless we support them by the free administration of brandy or wine, they will fail altogether. If we do the best we can, the larger number of cases may prove fatal.

In these cases, swabbing out the throat once or twice a day, for several days, with a solution of the crystals of nitrate of silver, will generally prove useful. The solution should be quite strong — forty to sixty grains to an ounce of water. A hot flaxseed poultice may be applied to the throat. Sometimes I have painted the throat outside with tincture of iodine, once or twice a day, for several days, with apparent benefit. For diet, good beef tea and milk may be freely given.

Beware of giving cathartics too early in this disease, for it is one in which the powers of life must be supported, instead of lowered. If the bowels are constipated at the commencement, a gentle laxative only should be given.

Mothers should be very careful of their children for three or four weeks after they have had scarlet fever, lest they take cold, which is liable to cause kidney and dropsical trouble of a serious nature.

CHAPTER III.

ACUTE RHEUMATISM.

This disease consists of an inflammation of the larger joints, accompanied by well-marked fever symptoms; the inflammation often shifting from joint to joint, and in many cases attacking the fibrous textures of the heart.

Symptoms. The disease generally sets in soon after exposure to cold and wet, with all the symptoms of a "cold;" the pain in the back and limbs being unusually severe, and accompanied by a sensation of coldness and stiffness. In the course of two or three days, inflammation shows itself in one or more of the larger joints of the body, characterized by redness and heat of surface, acute pain, extreme tenderness, swelling, and tension. There is great constitutional disturbance, with extreme restlessness, intense thirst, and loss of appetite. The pulse ranges from ninety to one hundred and twenty, and is full, hard, and jerking. The skin is often bathed in a profuse acid sweat, which, however, affords no relief. There is constipation in most cases, and the urine is high-colored and scanty. This disease is rarely confined to the joints first attacked; but after some hours or days, it attacks other joints, sometimes continuing in those first affected, at others leaving them quite free from pain and swelling. In rarer instances, it returns to the joints first affected, and ultimately extends to all the larger joints of the body. Some amendment usually takes place at the end of two or three weeks; the pain lessens; there is less fever and less perspiration; the urine is more abundant;

the appetite returns; the thirst diminishes; the pulse falls; and the patient's movements become more free.

In many cases the disease extends to the fibrous tissues of the heart. The symptoms which denote this formidable complication are difficulty of breathing, palpitation, pain in the region of the heart, &c.

CAUSE. The disease is supposed to depend upon an excess of lactic acid in the blood. The *exciting* cause is exposure to wet and cold.

TREATMENT. At the commencement it is advisable to give a thorough purgative, which may consist of eight grains of calomel and fifteen of jalap. During the whole course of the disease the bowels should be kept rather loose, by giving every day or two, either a Rochelle powder or a small quantity of Epsom salts. Opiates in full doses are generally necessary to relieve the pain and general irritability. A pill, composed of two grains of opium, may be given every night; and unless the patient perspires freely, one of the following powders may be given once in four or six hours during the day.

Take of Powdered Opium, . . . 6 grains.
Powdered Ipecac, . . . 6 grains.
Powdered Nitrate of Potassa, . 48 grains.
Mix thoroughly and divide into twelve powders.

In addition to the foregoing, the following mixture will prove very beneficial in most cases: —

Take of Bicarbonate of Potassa, . . 1 ounce.
Peppermint water, . . . 6 ounces.
Syrup of Orange Peel, . . 2 ounces.

Mix. A tablespoonful may be taken every third hour, for two or three days, after which one half the quantity may be given, until the pain and fever are very much lessened. If the disease remains stationary in one or two joints, a couple of grains of iodide of potassium may be advantageously administered with each dose. During convalescence, R. 62 or R. 63 may be taken with benefit. The diet must at

first be low, consisting of gruel, arrowroot, &c. Whenever signs of depression are observed, good beef tea and milk may be administered, with, if necessary, brandy and water. Light puddings, potatoes, and fish should be allowed as soon as the appetite returns, and the stomach appears capable of digesting them. As soon as convalescence is thoroughly established, mutton, beef, and poultry may be given. In the early stages, when there is much thirst, a plenty of lemonade may be allowed.

Local Remedies. When the wrists and ankles are chiefly affected, much benefit will arise from frequently soaking them in a warm alkaline bath; or from fomenting them with warm water, to which a little bicarbonate of soda and laudanum have been added. Rubbing the parts two or three times a day with *opium liniment* often proves serviceable. Wrapping the affected joints in cotton wool and oiled silk frequently gives relief. When the acute symptoms have partially subsided, the swollen joints may be painted with tincture of iodine.

CHRONIC RHEUMATISM.

This is sometimes the sequel of rheumatic fever, but frequently a separate constitutional affection, coming on quite independently of any previous acute attack. It is quite common in people past the meridian of life, few old persons being entirely ignorant of its symptoms.

In chronic rheumatism the fibrous textures around the joints, or the fibrous envelopes of the nerves, or the aponeurotic sheaths of the muscles, the fasciæ, or the periosteum, are the parts that suffer. Whichever tissue may be affected, there is, at first, only slight constitutional disturbance; but the sufferer is constantly annoyed, and his existence at length made miserable, with chronic pains, causing him to be restless at night, and destroying all comfort during the day.

There are two or three different *forms* of chronic rheumatism. Thus rheumatic inflammation of the *lumbar fascia* is termed *lumbago*, the pain being referred to the fleshy mass of muscles on one or both sides of the loins, and being increased by every movement of the back. *Stiff* or *wry neck* is another variety, generally due to sitting in a draught. In *sciatica* the suffering is due to disease affecting the sheath of the sciatic nerve. When the muscles between the ribs, or the fibrous fasciæ lining the chest, are affected, the disease is frequently called *pleurodynia*. The "stitch" which follows a deep inspiration must not be mistaken for the lancinating pain of pleurisy.

TREATMENT. In the treatment of chronic rheumatism it is always necessary to attend to the general health, as by so doing the disease will generally be materially mitigated. Care must be taken that the function of digestion is performed naturally; while sleep must be afforded by opiates, if necessary. There are several remedies that have proved beneficial in this disease, but I cannot in this work mention them all. The *iodide of potassium*, and the *cimicifuga racemosa* or *black snakeroot*, will be found very efficacious in the majority of cases.

Take of Iodide of Potassium,	. .	8 scruples.
Fluid Extract of Cimicifuga,	.	2 ounces.
Syrup of Gum Arabic,	. .	2 ounces.

Mix. A teaspoonful may be taken in a wineglass of water three times a day, *after* meals.

Local applications, such as blisters (R. 80), iodine paint (R. 86), and chloroform and opium liniment (R. 111), often give temporary relief. In *lumbago*, a large belladonna plaster, applied over the whole loins, will often be productive of great comfort. *Ironing* the part, a piece of paper or cloth being placed between the hot iron and skin, deserves mention. All sufferers from chronic rheumatism should wear flannel, and beware of exposure to wet and cold.

SCIATICA.

This disease is a form of *neuralgic rheumatism*, and consists of acute pain following the course of the great sciatic nerve, extending from the hip down the back of the thigh to the knee, and frequently along the nerves of the leg to the foot.

Causes. Rheumatism; pressure upon some part of the nerve, such as may arise from intestinal accumulations, or from simple or malignant tumors of the womb; and occasionally from inflammation.

Usually one limb only is affected. The muscles feel stiff, and as if their action were impeded, so that the patient limps along with the aid of a stick. The duration of sciatica varies from a few weeks to several months or years. The middle period of life, from forty to sixty, is most obnoxious to it; and occasionally attacks of it alternate with other rheumatic or neuralgic affections.

Treatment. Remove the causes, if they can be ascertained. If it has a rheumatic origin, the treatment recommended for chronic rheumatism will prove beneficial.

GOUT. (*Podagra.*)

Gout may be defined as a specific inflammation, having a constitutional origin, and being much favored by an hereditary taint.

Symptoms. The acute attack may be preceded by premonitory symptoms, or it may come on suddenly. In the former case, the patient complains, for two or three days prior to the seizure, of heartburn and flatulence, and of dull pains in the left side of the chest, with inability to lie comfortably on that side.

Very often, however, there is no warning. The victim

goes to bed apparently well, but towards morning awakes with a severe burning and throbbing pain in the ball of the great toe, or in the heel, or the fasciæ covering the instep of the foot, or the thumb. There is often a slight chill, succeeded by heat. The pain is most excruciating; but it abates near the dawn, and the patient falls asleep. On again awaking, the affected part is found red, swollen, and exquisitely tender to the slightest touch. The sufferer is feverish, restless, very irritable, and much depressed; his bowels are constipated, and his urine scanty and high-colored. The bladder is often irritable, so that it has to be emptied frequently, while the urine in its passage gives rise to a sense of heat in the urethra.

In a few days, sometimes almost in a few hours, the attack passes off, and the patient is well; often better, indeed, than he has been for a long time previously. But the disease will return. At first two or three years may elapse; with each paroxysm, however, the interval will shorten, until at length, perhaps, the patient is hardly ever free from an attack, except it may be for a few weeks in summer. At first, also, it confines itself to a single joint; by degrees several joints in both feet or in the hands suffer. Deposits are formed around and outside the joints of a material resembling moist chalk, and consisting of *lithate of soda*. Gout sometimes leaves a joint, and goes to some internal organ, more especially to the stomach. It is then called *retrocedent* gout.

This disease may be distinguished from *rheumatism* by the seat of the disease being the smaller joints, especially the great toe; by the more intense color of the inflamed part; by its more sudden attacks.

Causes. It is often hereditary, but more frequently acquired by a luxurious mode of living, sedentary habits, and over-mental toil and anxiety, especially when stimulants are resorted to for the purpose of making this toil more supportable. It generally begins between thirty and forty years

of age. Women are much less liable to this disease than men.

TREATMENT. The treatment of gout naturally divides itself into that proper during an attack, and that to be adopted in the interval. At the commencement of the attack, the bowels may be moved by a Rochelle powder, or dose of Epsom salts. This may be repeated every second day, if necessary.

The preparations of colchicum prove very beneficial in this disease, and may be given in combination with some alkali and laudanum. The following is a good preparation: —

Take of Bicarbonate of potassa,	.	6 drachms.
Tincture of opium,	. .	4 "
Wine of colchicum seed,	.	12 "
Liquid acetate of ammonia,		10 ounces.

Mix. An adult may take a tablespoonful in a little water, three times a day.

The dose may be diminished as the inflammation abates, and it may be given in small doses, of from one to two teaspoonfuls, for a week or two after the disappearance of the malady.

The *local treatment* may be the same as recommended for rheumatism. This disease may be prevented by regular living, avoiding the exciting causes of the disease, by abstinence from liquors, and the moderate use of animal food, and by a milk and vegetable diet, friction with the flesh-brush, regular exercise, bathing, the regular use of mild laxatives, and when dyspeptic symptoms are present, the treatment applicable to that disease.

TREATMENT OF RETROCEDENT GOUT. If the stomach is attacked, apply a mustard poultice over that region, and soak the feet in hot mustard water. Warm brandy and water may be taken rather liberally.

SCROFULA.

By the term *scrofula* is understood a peculiar state of constitution, characterized by want of power and tone; the deposit of a substance called *tubercle* in several organs of the body, and a tendency to indolent inflammatory swellings and chronic ulcers.

The most common forms of scrofulous disease, are chronic inflammation and suppuration of the glands of the neck, enlarged tonsils, "white swelling," and pulmonary consumption.

The form of scrofula to be described in this place is that which attacks the absorbent glands of the neck. Other scrofulous affections will be treated of elsewhere in these pages.

Symptoms. This disease most commonly affects children of a lax habit of body, with a smooth, soft skin, delicate, rosy complexion, fair and fine hair, large blue eyes, and full upper lip. A less common combination is the dark hair and olive complexion. The subjects of this disease often display great acuteness and aptitude, with lively imaginations and ardent affections, and not unfrequently a great precocity of intellect.

The scrofulous affection of the glands of the neck first appears as a slight swelling of one or more of the glands of one or both sides of the neck, especially of those situated beneath the lower jaw. The tumor is even to the touch, not tender, nor marked by any inflammation of the skin. Sometimes the swollen gland, or glands, will remain in this state without perceptible change for weeks, months, or even years. Sometimes, under proper treatment, they gradually disappear. In the large majority of cases they proceed to suppuration, when pus and a curdy or cheesy matter is discharged. The abscess thus formed heals slowly, has an unhealthy appearance, a dull red color, with hard, swollen,

irregular edges, and an uneven base, clogged with curdy matter. The constitutional disturbance which accompanies these local changes is often slight. The patient frequently has every appearance of good health. In some cases there is general debility, emaciation, and loss of appetite. In advanced stages of the disease, especially in young adults, pulmonary consumption may supervene, and the two diseases run together until they destroy the patient.

CAUSES. Hereditary taint, syphilis, or gout, or a shattered constitution in one or both parents, disparity of age, scanty and unwholesome food, and impure air.

TREATMENT. In treating this disease we must endeavor to improve the general health, promote the absorption or dispersion of local tumors, and the healing of ulcers.

A nutritious diet, adapted to the age of the patient, with a due allowance of animal food, will be required. During the formation of matter, wine and malt liquors, in moderate quantity, may be given with advantage.

Daily exercise, short of fatigue, is beneficial. The clothing should be warm, and flannel should be worn next the skin.

Change of air, especially from a low, damp situation to a high and dry one, is advisable. Sea air and sea bathing in the summer and autumn months may prove advantageous. Daily ablution of the skin with cold or tepid water, followed by friction with a coarse towel, will do good.

The bowels may be regulated by laxatives, if necessary. The preparations of iron (R. 59, 60, 63) and iodine (R. 67, 68) may be given with advantage in all cases. Cod-liver oil is a valuable remedy in this disease. Simple enlargement of the glands of the neck may be treated by giving R. 67, and frequently applying to the tumor the iodine paint.

Open scrofulous ulcers may require to be touched with lunar caustic, and afterwards a poultice or resin ointment may be applied.

ANÆMIA, CHLOROSIS.

This is a disease dependent on a decrease of the red particles and solid constituents of the blood. It usually comes on gradually.

Symptoms. Universal paleness of the skin, tongue, gums, and lining membrane of the mouth; cold extremities, debility, fainting fits, palpitation, and difficulty of breathing on the slightest exertion, headache, pain under the left breast, or a sense of fulness in the chest, pulse frequent, small, and quick, increased by exertion and motion. The patient is easily agitated by slight noises and unexpected events, and suffers from depression of spirits, and in some cases from hysteric fits. The bowels are generally torpid. This disease occurs oftener in females than males, and is generally in some way connected with the function of menstruation.

In males it may be occasioned by overwork, as in bakers, and other men following exhausting occupations, without sufficient time for rest and refreshment.

Treatment. Remove as far as possible the causes of the disease, and administer the preparations of iron (R. 59, 61 or 63) for a considerable time.

The diet should be substantial; good beef, mutton, and poultry are excellent. Out-door exercise short of fatigue, the respiration of pure air, and cool bathing, particularly in sea water, will prove serviceable.

If the bowels are constipated, they may be kept regular by taking, every second or third night, two or three of the *pills* of *aloes* and *myrrh*.

CHAPTER IV.

DISEASES OF THE NERVOUS SYSTEM.

INFLAMMATION OF THE BRAIN.

Symptoms. Intense pain in the head; the eyes incapable of bearing the light; delirium; face flushed; oppression of the breast; the pulse hard and very rapid; tongue at first fiery red, then yellow, brown, or black.

Causes. Excessive heats, or great vicissitudes of temperature; exposing the head uncovered to the sun (*coup de soleil*), violent exercise, excited passions of the mind, external violence, the abuse of spiritous liquors, metastasis of gout, rheumatism, erysipelas, small pox, measles, scarlet fever; whooping-cough, teething, &c.

Treatment. To an adult give a purgative, composed of five grains of calomel and fifteen of jalap. In three or four hours after this is taken, give a tablespoonful of Epsom salts, dissolved in a tumbler of water. Repeat the purge every day or every second day, according to the urgency of the case.

The application of cold to the head, after it has been shaved, is a remedy of great importance. Pounded ice in a bladder, or the *constant* application of cold water, or iced water, will often be followed by the most happy results. Rice water, barley water, lemonade, or cold water, should be the only diet, until the symptoms begin to abate. The patient's room should be well ventilated, but darkened, and should be kept quiet, as very slight noises will disturb him.

When, from exhaustion of the nervous force, an extreme degree of prostration occurs, brandy or R. 43 should be given, as occasion requires, and strong beef tea and milk may be freely taken.

WATER IN THE HEAD. (*Acute Hydrocephalus.*)

This is a common disease of children under five years old. It generally occurs in feeble, scrofulous children, but may occur in others.

Symptoms. The symptoms are somewhat various and uncertain. There is fever, appetite variable, the tongue furred, the breath offensive; there is often nausea and vomiting, and the bowels are disordered — generally constipated. The child is drowsy, yet restless; it sleeps badly, moans, grinds its teeth, screams, and awakes suddenly in alarm, without any apparent cause. In four or five days, if the disease is unchecked, its nature becomes apparent, and its cure almost hopeless. The child at this stage wishes to remain quiet in bed; its countenance is expressive of anxiety and suffering; its eyes are closed, and eyebrows knit; and it is annoyed by light and noise. If old enough to reply to questions, it complains of headache, weariness, and sleepiness; crying out frequently, "O, my head!" As the disease advances, the pulse falls rapidly, sometimes from one hundred and twenty to eighty in a few hours; the slightest exertion however accelerates it. Stupor and heaviness soon come on; there is often squinting; convulsions frequently occur, and sometimes paralysis. At the end of a week or two the child may pass into a profound sleep, or stupor, from which it is impossible to rouse him. Sometimes convulsions put an end to the painful scene.

Treatment. This disease is one of the most serious to which children are liable, and when it is suspected, send for a physician at once, if one is to be obtained.

Keeping the bowels open, and the constant application of cold water to the head, are approved measures of treatment; but the disease generally terminates fatally.

APOPLEXY.

By apoplexy, is understood sudden insensibility — the loss of sensation, thought, and power of voluntary motion; together with more or less severe disturbance of the functions of respiration and circulation.

Symptoms. Falling without sense or motion; profound sleep; face livid or flushed; eyes wide open, or half closed, and immovable; stertorous breathing, &c.

Causes. The excessive use of intoxicating drinks, tobacco, opium; a rush of blood to the head, from any cause; violent exercise; sudden excitement; intense heat; anger, &c.

An attack of apoplexy may gradually pass off, leaving the patient well, or it may terminate in incomplete recovery, the mind being impaired, and some parts of the body paralyzed; or it may end in death.

Persons whose ancestors have suffered from the disease, and fleshy individuals, with short, thick necks, are most subject to this disease. Persons beyond fifty years of age are most liable to it.

This dreadful disease is seldom experienced without some previous threatenings; which, properly interpreted, should put the patient on his guard. Among the warnings are headache and giddiness, experienced particularly on stooping; a feeling of weight and fulness in the head, with noises in the ears and temporary deafness, transient blindness, or sometimes double vision; repeated bleeding from the nose; fits of nausea, and a sense of numbness in the limbs; loss of memory; partial paralysis, sometimes affecting a limb, sometimes the muscles of the face, sometimes the tongue or eyelids.

Persons who have these warnings must carefully guard against everything liable to bring on an attack. They should live sparely, and avoid the use of spirits, tobacco, and opium; tight neckcloths, straining at stools, long-continued stooping, excitement, &c. In most cases of death from apoplexy there is an effusion of blood (from the rupture of some small artery), upon or between the membranes of the brain.

Treatment. When a person falls in an apoplectic fit, if the vessels of the neck are congested, and if the face be flushed and turgid, bleeding may be resorted to. But if the patient is feeble, and has an almost imperceptible pulse, and a cold, clammy skin, bleeding will only insure a speedy fatal termination. In either case the patient ought be removed into a cool, well-ventilated room; his head should be well raised; all the tight parts of his dress must be loosened, especially his cravat and shirt collar; and cold water, or pounded ice in a bladder, applied to his head. His feet may be put into a vessel of very warm mustard-water at the same time. If it be a case requiring bleeding, it should be done at once, by opening a vein at the bend of the arm or in the foot, and half a pint to a pint of blood be allowed to flow.

Active purgatives are very serviceable. Three or four drops of Croton oil, made into a pill with a crumb of bread, should be given at once. An injection, R. 12, should also be given immediately. These cases admit of no delay. Supposing a patient to recover from the fit, great care will afterwards be required to prevent a second attack.

SUN STROKE. (*Coup de Soleil.*)

This disease is allied to apoplexy. It proceeds from exposure to the sun's rays.

Symptoms. These are, generally, faintness, thirst, great

heat, and dryness of skin, with prostration. Sometimes the patient is suddenly prostrated as in apoplexy, and dies at once; at other times the disease comes on very insidiously. A man will be seen to be listless and stupid, but he makes no complaint beyond saying that his head feels a little queer. Yet in twelve hours he may be dead.

Treatment. Apply cold to the head perseveringly, and warmth to the extremities, as in apoplexy. If prostration becomes very great, spirits may be given, and the application of cold to the head discontinued. In such cases send for a physician as soon as possible.

DELIRIUM TREMENS.

This is quite a common disease, and generally arises from the excessive use of ardent spirits, wine, or beer. The habitual use of opium, and excessive mental excitement, may cause it. Men are very much more subject to it than women.

Symptoms. This disease is characterized by sleeplessness; a busy but not violent delirium; constant talking or muttering; a trembling of the hands; and general excited and eager manner. If questioned about his disease, he will answer readily and to the point; describe, in an agitated manner, his feelings, put out his tongue, and do whatever you ask him. But soon afterwards his mind wanders from the scene around him to some other that exists only in his imagination. His thoughts generally appear to be distressful and anxious; perhaps he gives orders that relate to his business, to persons who are absent; or he is devising plans to escape from some imaginary enemy; at times he fancies that "little devils," rats, mice, reptiles, &c., are running over his bed, or that strangers are in his room. He looks suspiciously behind the curtain, or under his pillow, and he is perpetually wanting to get out of bed, but is gener-

ally readily induced to lie down again. It is not often that he meditates harm, either to himself or to others; there is, rather, a mixture of cowardice and dread with the delirium. Sometimes, however, he will be obstinate, and inclined to get out of the house, even if he has to jump from a window. In such cases the watchful care of attendants is required.

TREATMENT. The great object is to induce sleep; and for that purpose give a morphine pill, R. 45, every hour, until three have been given, unless the patient falls asleep before the third hour has expired. At the same time stimulants are necessary, and, as a rule, that stimulant will be most beneficial to which the patient has been accustomed. Thus, if whiskey is his favorite liquor, give him that; but if most accustomed to brandy, administer it now. When there is great prostration, good beef tea and milk should be freely given.

Occasionally it is necessary to restrain the patient's movements by strapping him to his bed, or by putting on a strait waistcoat. This should never be done, however, if it can possibly be avoided, as it always increases the excitement and prevents sleep. It will be much better to have one or two attendants at the bedside to quietly control him. The apartment occupied by the patient should be kept quiet, a little darkened, and well ventilated.

INSANITY.

Insanity is a general term used to express the mental condition opposed to sanity, — sanity being that state of mind which enables a man to discharge his duties to his God, his neighbor, and himself. This definition is open to many objections, and every definition will be so. For as nothing can be more slightly defined than the line of demarcation between sanity and insanity, so, if we make the definition

too narrow it becomes meaningless; and if too wide, the whole human race may be involved in it.

Varieties of Insanity. The following classification is, perhaps, as simple and intelligible as any: *Mania*, *Monomania*, *Dementia*, and *Idiocy*. It must be remembered, however, that the differences between these varieties are almost always indistinctly marked, and that the various forms frequently run into each other.

Mania. Mania, or raving madness, is characterized by *general* delirium. The reasoning faculty, if not lost, is disturbed and confused; the ideas are abundant, erroneous, absurd, wandering, — not under control. The manners are violent, excited, mischievous.

Although mania does not always make its incursions suddenly, it is that form of insanity which most frequently does so. From its commencement the delirium is general, and the fury often extreme. Then it is that maniacs frequently destroy themselves; either from not knowing what they do, or from despair, being conscious of their condition, or from accidentally injuring themselves.

In general, maniacs soon become weak and emaciated. The mere physical exertion which they go through, sometimes shouting, howling, laughing, reciting, &c., for hours together, often restless, constantly and rapidly moving about, would quickly exhaust a strong man. Combined with this fatigue is a want of refreshing sleep, and not unfrequently an aversion to all food. When recovery takes place it is preceded by sleep, a desire for food, and a gradual cessation of the agitation and delirium.

Puerperal Mania is a peculiar affection, sometimes occurring to women about the fourth or fifth day after delivery. In most cases there is considerable debility. The delirium is often violent, and there is great general irritability.

Treatment. These cases of puerperal mania require peculiar care. The indications are to rouse and support

the powers of the patient, and to allay the irritability of the brain and nervous system.

Good milk and beef tea, and wine or brandy, may generally be used to advantage. To allay irritability and promote sleep, a morphine pill, R. 45, may be given, and repeated in four to six hours, if necessary. Lupulin, in drachm doses, often proves useful when given two or three times a day.

The patient must be controlled effectually, but mildly, by a good nurse, accustomed to the management of these cases; and when the disease threatens to be of considerable duration, she should be separated from her family and friends.

Monomania. Monomania, or partial insanity, is that form in which the understanding is partially deranged, or is under the influence of some particular delusion. The mind is vigorous, the ideas are few, erroneous, fixed, not under control. The manners are in accordance with the predominant idea or train of ideas. At one time the intellectual disorder is confined to a single object, or a limited number of objects. The patients seize upon a false principle, which they pursue logically, and from which they deduce legitimate consequences, which modify their acts and affections. Thus, a monomaniac will insist that his body is made of glass, and being thoroughly impressed with this idea, will reason correctly that slight causes will injure it; he constantly walks with care, and avoids any rough handling. Aside from this partial delirium, he often thinks, reasons, and acts like other men. Another monomaniac will fancy himself possessed of a demon, or evil spirit, or will believe himself to be a god, imagining that he is in communication with heaven.

That form of monomania which is characterized by fear, moroseness, and prolonged sadness, has been separately described by some as *melancholia*. Such cases are painful to have charge of, the despondency is often so great. Such persons are occasionally bent on committing suicide, and will often resort to modes of destruction such as baffle all ordinary precautions.

Kleptomania is another form of monomania, in which the individual seems to have an irresistible desire to steal. *Pyromania* is another form, in which the person has a propensity to set houses on fire. The two latter forms are sometimes treated of under the head of *moral insanity*. Perhaps in some of these cases the term *depravity* would be more appropriate than that of insanity.

Dementia. Dementia, or incoherence, is that condition in which weakness of the intellect, induced by age or accident, is the prominent feature. The mind is altogether weak; the ideas are confused, vague, obscure, incoherent, unfixed, and the memory is impaired. The patients are ignorant of time, place, quantity, &c. They forget in a moment what they have just seen or heard. Their manners are undecided, childish, and silly. They see their best friends and relations without pleasure, and they leave them without regret. The ultimate tendency of mania and monomania is to pass into *dementia*, which is rarely cured.

Idiocy. This condition is characterized by partial or complete absence of the intellect, either from date of birth, or occurring in early life. The mind is not developed; there are no ideas, or they are few. The manners are childish, with occasional gusts of passion. The countenance is vacant, and void of aught approaching to intelligence.

Causes of Insanity. The causes of insanity are often difficult to detect. It is no doubt frequently hereditary; or it may be traced to marriages among near relatives; or it may, perhaps, be due to syphilis in the system of the parents, or to drunkenness on their part. The more immediate causes may be injuries of the head, abuse of alcohol or narcotics, as tobacco and opium, sexual excesses, and particularly masturbation; defective nutrition, long protracted watchings and loss of rest, fevers, the retrocession of erysipelas or gout in persons predisposed to insanity. Then there are certain moral causes, as blighted ambition, disappointment in love, perverted religion, immoderate grief, long-

continued anxiety and distress, prolonged intellectual exertion, and pecuniary reverses.

The age at which insanity appears to be most common, is between twenty and forty; in women, perhaps, between twenty and thirty, in men between thirty and forty.

General Treatment of Insanity. When a person is thought to be insane, the case should be submitted to some reliable physician for examination; and if he confirms the suspicion, abide by his judgment in regard to the management of the patient.

As regards the medical treatment, it must of course depend upon the state of the patient; but it may be positively asserted that under no circumstances should a lowering or reducing system be pursued. Our object clearly must be to restore and maintain the general health. In an ordinary case of insanity, I should especially take care that the patient had a nutritious diet, warm clothing, exercise in the open air, healthy and regular evacuations from the bowels, and sound sleep at night. At the same time no mechanical restraint is to be resorted to; and such cheerful occupation and mental amusement should be afforded as the patient could beneficially enjoy.

Where patients obstinately refuse their food, strong beef tea mixed with wine, and gruel or milk, must be introduced into the stomach, by means of the stomach pump. As regards the moral treatment, no rules can be of universal application. I will only say, therefore, that it should be regulated by the "law of love;" and that no harshness, or means which induce fear, should be tolerated. The patient should be controlled, when possible, by firmness and *kindness*, rather than by coercion. In order to render restraint necessary, a lunatic should be in such a state as to be dangerous to himself or to others. It is undoubtedly true that many asylums contain harmless lunatics, who would be much happier, and in no degree injured, by a residence elsewhere, but who, unfortunately, have relations and friends who will not be troubled with them.

HEADACHE. (*Cephalalgia.*)

Headache is of common occurrence, as a prominent symptom in the progress of most acute, and of many chronic diseases. Occasionally, however, it predominates so much over the other phenomena, that instead of being a symptom, it really becomes a disease.

Three varieties of headache may be noticed. *First*, the *Plethoric Headache*, which is connected with fulness of blood; the vessels of the head become congested; there is a sense of pulsation in the ears, and giddiness on stooping. Persons who live too high, who rise late in the morning, &c., are liable to it. Plethoric young women, with irregularity of the menstrual function, are also subject to it.

The *Second*, or *Bilious Headache*, may be temporary or constant. When temporary, it generally arises from some error of diet, some excess either in food or wine, and passes away when the cause ceases. The constant bilious headache occurs in persons of weak stomach, who are almost always suffering from dyspepsia or indigestion.

The *Third*, or *Nervous Headache*, is generally due to debility and exhaustion. Sometimes it assumes an intermittent form, and is then characterized by its tendency to recur every day, or every second day, with the same degree of regularity as an ague fit. It is often due to constitutional debility. It is sometimes caused in women by over-nursing.

Treatment. In treating *Plethoric Headache*, administer a thorough purgative, put the patient's feet in hot water, and apply cold water to the head. It is also well to observe a low diet for a day or two.

The *Bilious Headache* will disappear when the digestive organs are put in good condition. If the patient is dyspeptic, treat him for that disease.

The *Nervous Headache* will disappear when the general

health and strength have been improved. A nourishing diet, and tonics R. 63, R. 146, will prove beneficial.

PARALYSIS. PALSY.

By paralysis, or palsy, is understood a total or partial loss of sensibility or motion, or of both, in one or more parts of the body. All paralytic affections may be divided into two classes; the *first*, including those in which both the power of motion and the sense of feeling are affected; the *second*, those in which the one or the other only is lost or diminished. The former is called *perfect*, the latter *imperfect* paralysis. Imperfect paralysis is divided into paralysis of motion, and paralysis of sensibility. Again, the paralysis may be *general* or *partial*, as it affects the whole body or only a portion of it. Partial paralysis is divided into *hemiplegia*, when it is limited to one side of the body, and *paraplegia*, when it is confined to the lower half of the body.

The term *local paralysis* is used when only a small portion of the body is afflicted, as the face, a limb, a foot, &c.

There are certain forms of paralysis which arise from the use of metallic poisons, as *mercurial palsy* and *lead palsy*. There is also a peculiar affection known as *paralysis agitans*, or shaking palsy.

GENERAL PARALYSIS.

General paralysis — or complete loss of sensation and motion of the whole system — cannot take place without death immediately resulting; but this term is usually applied to palsy affecting both hands and feet, whether any other parts of the body are implicated or not.

HEMIPLEGIA.

By the term *hemiplegia* is understood paralysis of one side, extending generally to both the upper and lower extremities.

It is the most common form of palsy; the left suffers more than the right side. When only one extremity suffers it is generally the arm. The paralysis usually extends to the side of the face, the angle of the mouth being drawn slightly upwards and to the sound side. The tongue, also, is often affected; when protruded, its point is turned towards the palsied side. The paralysis is always limited to one half of the body, the median line being the boundary. In most cases the sense of feeling as well as motion is lost. The mental faculties are sometimes uninjured, but more frequently are irreparably damaged. The memory especially becomes affected; at the same time there is a peculiar tendency to shed tears, and to be much affected by slight causes.

If recovery takes place, the symptoms of amendment are first noticed in the leg. In hopeless cases the limbs waste; and they are colder, and unable to resist the influence of cold or heat equally with the sound parts. Hemiplegia is generally the result of organic injuries of the brain. It is often a sequel of apoplexy, and in such cases the effused blood is found on the side of the brain opposite to the affected half of the body.

PARAPLEGIA.

By the term *paraplegia* is meant paralysis of the lower half of the body. It generally comes on slowly and insidiously, with weakness and numbness of the feet and legs, or with tingling of these parts, unattended by pain. By degrees the weakness increases until there is complete loss of sensibility and motion in the lower extremities, with paralysis of the bladder and rectum. Although voluntary motion is completely abolished in the lower limbs, involuntary movements and spasms of the muscles are not uncommon. Paraplegia may arise from injury of the spinal cord or its membranes; from inflammation or other diseases of these parts; from tumors pressing upon the cord; as well as from affections of the bones and cartilages of the spinal column.

LOCAL PARALYSIS.

Of the different varieties of local palsy, I will only mention *paralysis of the face.* As only one half of the face is affected, the appearance is very striking, the features on the paralyzed side being blank, unmeaning, and void of all expression. It is generally free from danger, being but rarely connected with disease of the brain. Exposure to cold is said to be a frequent cause of it.

MERCURIAL PALSY.

Mercurial palsy, or mercurial tremor, as it is sometimes termed, consists of a kind of convulsive agitation of the voluntary muscles, which is increased when volition is brought to bear upon them. In advanced stage of the disease, articulation, mastication, and locomotion are performed with difficulty, while the use of the hands is almost entirely lost. The skin acquires a brown hue, and the teeth turn black. Workmen exposed to the fumes of mercury, such as gilders of buttons, glass-platers, barometer-makers, &c., are very liable to it.

LEAD PALSY.

This affection usually follows or accompanies lead colic, though it may exist independently. The poison of lead appears to exert some peculiar noxious influence over the nerves of the forearm and hand; in consequence of which the extensor muscles of the hands and fingers become paralyzed, so that when the arms are stretched out the hands hang down by their own weight, or, as the patients say, the *wrists drop.* The lower extremities are very rarely affected. The sufferers frequently experience attacks of lead colic.

A characteristic symptom of lead in the system is the existence of a blue or purplish line — the sulphuret of lead — round the edges of the gums, just where they join the teeth. Plumbers, painters, color-grinders, type-founders, &c., are the usual sufferers from this affection.

PARALYSIS AGITANS.

Paralysis agitans, or shaking palsy, is characterized by a tremulous agitation, — a continued shaking, — usually commencing in the hands and arms, or in the head, and gradually extending over the whole body. The disease progresses slowly, but when far advanced the agitation is often so violent as to prevent sleep; the patient cannot carry food to his mouth; swallowing and mastication are performed with difficulty; the body is bent forward, and the chin bent on the breastbone; the urine and feces pass involuntarily, and coma, with slight delirium, closes the scene.

TREATMENT OF PARALYSIS.

As paralyisis is only the effect of some morbid disease or injury in the brain or spinal cord, our treatment must be directed to the diseased condition on which it depends. In *hemiplegia*, when seen early, benefit may be derived from active cathartics, such as two or three drops of Croton oil, made into a pill with a crumb of bread, or ten grains of calomel and fifteen of jalap. The Croton oil is to be preferred, as it operates in much less time than calomel and jalap. Stimulating and purgative injections often prove beneficial. But in cases of *hemiplegia* and *paraplegia*, patients should be placed under the care of a regular physician as soon as possible.

In *mercurial palsy* the patient must be removed from the injurious atmosphere. Warm baths, good food, sea air, and iodide of potassium in five to ten grain doses in a gill of water, three times a day, will generally effect a cure.

Lead Palsy. In the treatment of lead palsy, the following mixture will be found beneficial.

Take of Iodide of Potassium, . .	8 scruples.
Peppermint Water . . .	4 ounces.

Mix. One to two teaspoonfuls may be taken in a gill of

water, three times a day. The iodide of potassium acts as a curative agent in lead poisoning, by converting the lead into a form (the iodide of lead) which can again be readily taken up by the blood, and evacuated by the natural outlets.

In *paralysis agitans*, or *shaking palsy*, I know of no measures likely to do much good. But the effects of pure air, nourishing diet, baths, preparations of iron, and occasional opiates, may be tried.

EPILEPSY.

Symptoms. A fit, in which the patient usually utters a loud shriek or scream, and immediately falls to the ground in a convulsion; the eyes are distorted and turned up; hands clinched; limbs convulsed, foaming at the mouth, the whole ending in a deep sleep.

Causes. The tendency to epilepsy is often hereditary. Sudden fright, anger, injuries to the nerves, &c., may produce it.

Treatment. During the fit, the patient should be laid in an easy position, his neckcloth, together with any tight parts of his dress, loosened. A piece of cork or soft wood should, if possible, be introduced between his teeth, to prevent injury to his tongue. The application of cold water to the head will sometimes be useful, especially if the countenance is turgid and congested.

In the interval, give tonics, and endeavor to improve the patient's general health. Persons subject to frequent attacks, may find the following mixture beneficial.

Take of Bromide of Potassium, . .	½ ounce.
Spearmint Water, . . .	3 ounces.

Mix. From half a teaspoonful to two teaspoonfuls, in a wineglassful of water, may be taken three or four times a day.

HYSTERIA.

This is a nervous disorder, often assuming the most varied forms, but commonly presenting a paroxysmal character. It chiefly affects females between the ages of fourteen and forty-five, and principally those possessing great susceptibility of the nervous system and of mental emotion.

Symptoms. Convulsive movements of the trunk and limbs, violent beating of the breasts with the hands clinched, or tearing of the hair or of the garments, shrieks and screams, violent agitation, and the sensation of a ball rising upwards to the throat, frequently attended by a feeling of suffocation, the attack ending with tears, convulsive fits of crying or laughter, and sometimes with violent hiccup. Occasionally the patient sinks to the ground insensible and exhausted, remains so for a short time, and then recovers, tired and crying, The fit is often followed by the expulsion of a quantity of limpid urine; occasionally it is passed involuntarily during the paroxysm. In most cases the patient is aware of what is passing around her.

Treatment. During the fit, the patient's dress should be loosened; she should be prevented from injuring herself; should be surrounded by cool air; and the following mixture given in teaspoonful doses: —

Take of Fluid Extract of Valerian, . .	4 drachms.
Tincture of Assafœtida, . .	4 drachms.

Mix. Give a teaspoonful, and repeat in twenty minutes. Bathe the head with cold water. If the patient is not relieved within one hour, give thirty drops of laudanum, which will almost invariably end the fit in less than an hour. Hysterical women are generally troubled with some irregularity of the menstrual function, and require some treatment to improve the general health.

FAINTING.

Causes. Sudden and violent emotions of the mind, injuries, bleeding, debility, the warm foul air of crowded rooms, disease of the heart, &c.

Treatment. Lay the person on his back, take off his cravat, open the doors and windows, or carry the patient into the open air, and sprinkle cold water in his face. Smelling salts may be held to the nose, and as soon as he revives so as to be able to swallow, give some spirit, as brandy or whiskey.

CATALEPSY.

This is a rare disease. Nervous hysterical women are most likely to suffer from it. By a fit of *catalepsy* is implied a sudden loss of consciousness and volition — the patient remaining, during the attack, in the same position in which she happens to be at the commencement, or in which she may be placed during its continuance. The attack may last only a few minutes, or several hours, or even one or two days. On recovery, which is generally instantaneous, there is no recollection of what has occurred.

The *treatment* should be similar to that for hysteria. Avoid all lowering remedies.

ST. VITUS' DANCE. (*Chorea.*)

This disease is characterized by incomplete subserviency of the muscles of voluntary motion to the will, giving rise to irregular, tremulous, and often ludicrous actions. It occurs most frequently in young girls between the age of six and sixteen.

Symptoms. It generally begins with twitchings of the muscles of the face. By degrees all, or almost all the voluntary muscles become affected; the child finds it impossible to keep quiet; there is a constant movement of the hands and arms, and even of the legs; one side of the body is generally more affected than the other; the features are curiously twisted and contorted, the speech is affected, and these movements are always most severe when the child is watched. During sleep these irregular actions usually cease. The disease is scarcely ever fatal, or even dangerous, unless it merges into organic disease of the nervous centres, or into epilepsy. Although most common in girls, yet boys not unfrequently suffer from it.

Causes, &c. This disease may last from one week to several months; the average duration, in uncomplicated cases, under the use of tonics and good food, being about four weeks. It is often complicated with hysteria, and the general health is usually below the normal standard. Fright seems to be a frequent cause; blows or falls seem sometimes to have induced it; and the occurrence of the disease from irregular teething, or from the irritation of intestinal worms, has long been noticed. Deranged uterine function is occasionally the apparent cause.

Treatment. The bowels should be well regulated by giving appropriate cathartics. If worms are suspected, give the remedies recommended for them, for a reasonable time. A plenty of good food and fresh air are essential. Three to five drops of the tincture of chloride of iron, in half a wineglassful of water, three times a day, will probably prove beneficial, if continued for some time. Recipe No. 57 generally proves beneficial.

LOCKED JAW. (*Tetanus.*)

This is a disease characterized by long-continued, painful contraction or spasm of a certain number of the voluntary muscles.

Symptoms. The muscles of the jaws and throat are usually first affected. When the disease proceeds, the muscles of the trunk and extremities become implicated. The muscles of the back are sometimes so much affected that they bend the body into the shape of an arch, so that the patient rests upon his head and heels. The abdominal muscles, when much affected, may bend the body so that the head will nearly touch the feet. The muscles of the side may also be similarly affected.

The suffering caused by the tetanic spasms is absolutely frightful to contemplate.

Causes. Exposure to damp and cold, bodily injuries or wounds, local irritation of a nerve, &c.

Treatment. If it arise from a wound, or injuries done to nerves or tendinous parts, apply laudanum very freely to the wound, after which cover it with a warm poultice. Opening or enlarging the wound may do good in some cases, but laudanum freely applied to the seat of injury, and also given internally, in large doses of from thirty to sixty drops, every three to six hours, according to the urgency of the symptoms, will probably do about as much good as any course of treatment. Etherizing the patient, and keeping him under the influence of that drug for many hours, is sometimes beneficial. At the commencement of this trouble the bowels should be moved by some cathartic, unless they are at the time quite free. If any nourishment is given, let it be milk or beef tea. This is a very serious and often fatal disease, and it will be well to call a physician as soon as possible. If one is not to be obtained, follow the above directions, and hope for a favorable result.

HYDROPHOBIA.

This is a most fearful, painful, and fatal malady, arising from the bite of a rabid animal. It manifests itself after an uncertain interval, varying from one month to eighteen. The majority of cases present symptoms within thirty or forty days from the inoculation of the poison.

Symptoms. A sense of chilliness, languor, and lassitude; there is restlessness also, and some headache. Sometimes there is a sensation of numbness or soreness in the bitten part. In two or three days the *confirmed stage* of the disease commences with talkativeness, peculiar sighings, and a horror of liquids; then succeeds a frequent sense of suffocation, an excessive secretion of saliva, and violent spasmodic convulsions of the whole body, occasioned especially by the sight of liquids, or the sound of running water, or any attempt at drinking. The general duration of this disease is from two to three or four days. As the fatal issue approaches, the sense of suffocation becomes more urgent, the convulsions more violent, the saliva more difficult to expel, though the attempts at spitting are incessant, and the terror greater, until at length wild delirium succeeds, followed by exhaustion and death.

There seems reason to believe that only a part of those bitten by rabid animals suffer from hydrophobia.

Treatment. This must be preventive, for the cure of the disease seems, in the present state of medical knowledge, almost hopeless. For directions for treating bites of rabid animals, &c., see the article on "Poisoned Wounds," in the Surgical part of this work.

In treating the disease itself, I should resort to the inhalation of ether, or to large doses of laudanum or opium, to relieve the patient, but with little or no hope of curing the disease.

NEURALGIA.

Neuralgia consists of violent pain in the trunk or branch of a nerve, occurring in paroxysms, at regular or irregular intervals. It may attack the nerves of the head, face, trunk, or extremities; the subcutaneous nerves of these parts suffer the most frequently.

Causes. *Predisposing.* — The nervous temperament. Low state of the system. Delicate health. *Exciting.* — Irritation of the root of the nerve within the cranium. Remote organic disease, especially disease of the kidney. Irritation of decayed teeth, &c.

Treatment. This must vary with the cause. If there is any source of local irritation, as a decayed tooth, it should be removed. If the general health is poor, improve it in every way possible: — by relaxation from business for a time, in cases where application has been too close; by giving some preparation of iron (R. 59), or quinine (R. 63), in cases where there is much debility. During a paroxysm, to relieve the pain, apply liniment No. 111, and take a dose of laudanum, or morphine if necessary.

Persons subject to neuralgic attacks must endeavor to ascertain the cause or causes, and remove them; otherwise permanent relief can hardly be expected. The digestive organs often need attention, and in women, the uterine functions should not be neglected.

CHAPTER V.

DISEASES OF THE AIR PASSAGES AND LUNGS.

ACUTE CATARRH. A COLD.

Acute Catarrh consists of inflammation of the mucous membrane of some part of the air passages. It is commonly known as "a cold." If confined to the eyes and nostrils, it is termed *a cold in the head;* if it extends to the bronchial tubes, it is called *bronchitis.* It is the commonest of all diseases, and arises not from mere cold, but from too sudden a change of temperature, or from exposure to wet, &c.

Symptoms. The symptoms chiefly consist of lassitude, pains in the limbs, aching of the back, a sense of tightness across the forehead, excessive discharge from the nostrils, profuse lachrymation, hoarseness, sore throat, furred tongue, more or less feverishness, thirst, loss of appetite, and a quick pulse. At the end of two or three days these symptoms begin to subside, or the disease passes into some more severe affection, as acute bronchitis, lung fever, &c.

Treatment. No one applies to a doctor to cure a cold. Every man acts as his own physician, and judiciously amuses himself with slops or herb teas, putting his feet in hot water, &c., while the disease runs its course, and in three or four days exhausts itself. Doubtless the cure may sometimes be hastened by a good purgative, followed by ten grains of Dover's powder at bedtime, or the use of R. 21 or R. 22. In some persons, an opiate at bedtime (ten to fifteen grains of Dover's powder) will cut short a catarrh or "cold."

CHRONIC CATARRH, &c.

Attacks of acute catarrh are apt to recur, on slight causes, in many susceptible subjects, and occasionally it becomes *chronic* in persons whose systems are not strong; and when it has become so, it is increased by the supervention of a fresh attack of the acute form of the disease; and if these recurrences are frequent, serious impediments will be offered to a termination of the affection.

Symptoms. Persons who apply for the purpose of being treated for what they term *catarrh*, complain of more or less discharge from the nostrils, also of a "dropping down" of matter from the posterior nasal passages into the throat; and there is in many cases an unnatural and more or less profuse secretion from the mucous membrane of the throat, which obliges the patient to hawk and spit frequently. The tonsils are often in an unhealthy and sometimes enlarged condition, and the uvula is frequently elongated to such an extent that its point lays upon the back part of the tongue, causing a tickling sensation to be experienced there, often accompanied by a desire to swallow. In some cases the patient is troubled with slight cough, and the disease is threatening to extend downwards into the larynx, trachea, bronchial tubes, &c., which it may do, sooner or later, if allowed to go on unchecked.

This disease is very common in our climate, and probably ever will be, and it is a source of great annoyance and discomfort to those who are afflicted with it.

Treatment. Chronic catarrh, affecting the mucous membrane of the nasal passages and throat, is often a very obstinate disease to treat; but many cases can be cured, and all greatly relieved or checked by *appropriate* general and local medication.

Persons afflicted with this trouble are continually trying "catarrh snuffs," and other quack preparations, one after

another, obtaining but little if any relief, until at length, after the disease has been upon them for a long time, and has become almost intolerable, they are led to apply to a physician for treatment.

Various are the means and measures used in the treatment of catarrh of the throat and nasal passages. Astringent gargles, inhalations of medicated vapors, and atomized liquids, &c., are found to be useful in nearly all cases. The *nasal douche*, by which a stream of medicated water passed into one nostril escapes from the other, is also very beneficial, when properly managed.

If, when applied to for treatment in these cases, the uvula is very much elongated, I remove a portion of it; and if the tonsils are so much enlarged as to impede respiration, their removal is also recommended. Then I proceed to make such applications to the throat and nasal passages as experience has taught me are most beneficial and effective in restoring the mucous membrane to a healthy condition. Solutions of the crystals of nitrate of silver, varying in strength from twenty to eighty grains to an ounce of water, when applied to the parts by means of a "*shower syringe*," which I have made for this purpose, will, I believe, do more good, in the majority of cases, than any other course of treatment. The strength of the solution should vary according to the condition of the parts. It is not often necessary to use one stronger than forty grains to the ounce. The application should be made, in some cases, every day, for a week or more; then every second, third, or fourth day, until the mucous membrane begins to have a natural or healthy look. While making these applications, the general health of the patient requires attention. If he is scrofulous, or has any poison lurking in his system, tonics and alteratives will be required. Treatment should be persevered in for several months if necessary.

CLERGYMAN'S SORE THROAT.

This disease, in its early stages, consists of irritation of the investing membrane of the fauces. Subsequently a series of morbid changes takes place, such as congestion, inflammation, or relaxation of the mucous membrane, enlargement of the tonsils, elongation of the uvula, and irritation, inflammation, morbid deposit, and ulceration of the mucous follicles. This sore throat either exists alone, or it may accompany or follow laryngitis, bronchitis, or consumption. Clergymen, lawyers, public speakers, actors, singers, &c., are most liable to it.

Symptoms. These consist of an uneasy sensation in the upper part of the throat, with continued inclination to swallow. The patient also makes frequent attempts to clear the throat by coughing, hawking, and spitting; he will point to the larynx, too, as being the seat of pain. At the same time the voice undergoes an alteration; there is loss of power and hoarseness; sometimes complete loss of voice, especially towards the evening. On examining the throat and fauces, we shall find these parts presenting an unhealthy, slightly raw or granular appearance; the mucous follicles will be visible, sometimes filled with a yellowish substance, and a viscid muco-purulent secretion will be seen adhering to the palate.

Treatment. In the early stages, the treatment must consist in the use of tonics, especially iron and quinine, the cold bath, or sea-bathing, and temporary change of scene and occupation.

When the disease is further advanced, a combination of internal with local remedies will be necessary. Iodide of potassium (R. 67) or iodide of iron (R. 68) may prove beneficial. The local treatment consists in the application of a solution of nitrate of silver (one to four scruples to the ounce of distilled water) to the diseased parts, even to the

interior of the larynx if possible, by means of the *shower syringe*, or probang. The operation requires dexterity, and can only be properly done by a physician. The application will require to be made about every second day for two or three weeks. When the tonsils are much enlarged, they will need attention; and if the uvula is considerably elongated, it may require excision.

ACUTE INFLAMMATION OF THE LARYNX.
(*Laryngitis.*)

This is not a very common disease, but in the greater proportion of cases in which it has occurred in a very severe form, it has proved fatal. Cold and wet are commonly the exciting causes of it, and, generally speaking, it is peculiar to adults. Washington is supposed to have died of it.

Symptoms. The symptoms of acute inflammation of the larynx are often at first obscure, as the disease may make its approach in a very insidious manner. Generally, however, they are these: Fever, harsh cough, pain referred to the *Pomum Adami*, difficulty of breathing and of swallowing, excessive anxiety, hoarseness, or even complete loss of voice, and frequent spasmodic exacerbation of these symptoms, causing the most distressing paroxysms of threatened suffocation. The inspirations are long, and attended with a peculiar wheezing sound, as if the air were drawn through a narrow reed. The face is flushed, the eyes protruded, the lips swollen, and the pulse hard. Unless relief be afforded, the distress gets greater and greater, the larynx and trachea move with great rapidity upwards and downwards, the chest heaves violently, the patient tries to get to the open window to obtain more air; he soon becomes drowsy and delirious, and then speedily dies, suffocated.

The inflammation is often of very limited extent: the danger is owing entirely to its situation.

TREATMENT. In some mild cases, seen early, an emetic, composed of the following articles, will prove beneficial: —

Take of Wine of Ipecac, . . . 1½ ounces.
Tincture of Lobelia, . . . ½ ounce.

Mix. Give a tablespoonful in half a cupful of warm water every fifteen minutes, until free vomiting takes place. Keeping the patient slightly nauseated for several hours by giving, every hour or two, from half a teaspoonful to a teaspoonful of the mixture, will generally prove beneficial. The bowels should be moved by a good dose of Epsom salts as early after the operation of the emetic as convenient; but the nausea must first be allowed to subside. In some cases, especially where the bowels are somewhat constipated, it may be advisable to give the purgative first. A hot flaxseed poultice may be placed upon the throat, and during the whole treatment the patient should avoid using his voice altogether, or speak only in a whisper, and should suppress the cough as much as possible. Rest and low diet are also requisite.

In *severe cases* the above measures will prove of little avail. Something more prompt and decisive must be done *at once*, or the patient may be dead in a few hours. With a probang, sponge the epiglottis, larynx, and cavity of the larynx, with a solution of the crystals of nitrate of silver, sixty to eighty grains to the ounce of water. It will generally give marked relief within twenty minutes. Repeat the operation in two or three hours if necessary. Let the patient hold small pieces of ice in the back part of his throat continually, and very hot fomentations should be applied to the throat externally for a considerable length of time.

After the urgent symptoms have subsided, the treatment applicable to milder cases will complete the cure.

But if this treatment fails to give relief, a surgeon should be called at once, who will proceed to open the windpipe, which may save the patient.

Chronic Laryngitis, &c. The larynx may also suffer from chronic disease. Thus chronic inflammation and ulceration is not uncommon in cases of pulmonary consumption, and the lining membrane of the laryngeal cartilages often becomes thickened and ulcerated in secondary syphilis. Warty growths may also arise from different parts of this tube, and cause great impediment to the entrance and exit of air. These cases always require the attention of a physician.

MEMBRANOUS CROUP. (*Tracheitis.*)

This disease consists of inflammation of the trachea (windpipe), often of the trachea and larynx, ending, in the majority of cases, in the exudation of false membranes upon the affected surface. It is a disease of early life, most cases occurring between the second and fourth year of childhood. It is sometimes complicated with pneumonia (lung fever) or bronchitis.

Symptoms. In the commencement they are those of a cold; slight fever, cough, hoarseness, drowsiness, suffusion of the eyes, and running at the nose. In a day or two there is an alteration in the character of the cough, which becomes attended with a peculiar ringing sound, rendering it "brassy," this cough being followed in a few hours by a remarkable change in the respiration. The act of inspiration becomes prolonged, and attended with a characteristic crowing or piping noise, readily recognized when once it has been heard. If now the throat be examined, the tonsils will be found enlarged and of a red color; the uvula also is sometimes slightly swollen. As the disease advances the fever increases, the breathing becomes more hurried and impeded, the cough more frequent, the pulse becomes weak and irregular; there is great thirst, and the child is very irritable and restless, and, with features expressive of alarm and distress, he grasps at his neck, or thrusts his fingers

into his mouth, as if to remove the cause of his suffering. The child appears brighter in the morning than at night. Should there now be a tendency towards restoration to health, the cough will lose its peculiar clang, and become moist, whilst the crowing inspirations will almost cease. On the other hand, when the disease is about to end fatally, the drowsiness soon becomes extreme, though the sleep is uneasy; the child starts and wakes in terror, the skin gets cold and covered with clammy sweats, and the child often dies directly after an inspiration, or coma and convulsions close the scene.

Sometimes the disease runs a very rapid course, the child dying in less than twenty-four hours, though its usual duration ranges from four to ten days. Fully one half of those attacked die.

Treatment. In no disease, perhaps, is it more necessary to be prompt and cautious. In all cases the patient must be confined to bed, and should be clothed in flannel. The air of the room should be kept warm and moist. When the disease is seen early, the continuous application of very hot fomentations to the throat will do great good. But if much benefit be not quickly apparent, an emetic should be given, and the following will, perhaps, be as good as any: —

Take of	Wine of Ipecac, . . .	1½ ounces.
	Tincture of Lobelia, . .	½ ounce.

Mix. For a child from one to three years old, give from half a teaspoonful to a teaspoonful, every ten minutes, until free vomiting takes place. Also give a warm bath. Supposing that the disease advances, notwithstanding these measures, send for a physician, if one is to be obtained; for opening the windpipe (tracheotomy) may possibly save the child. Some physicians recommend sponging the larynx with a strong solution of nitrate of silver, as directed in acute laryngitis in adults, and I believe it should be tried

when other measures fail to give relief; but as the false membrane often extends down the windpipe, and even into the bronchial tubes, it is not probable that in such cases much benefit would be derived from it.

SPASMODIC CROUP. (*Laryngismus Stridulus.*)

This affection occurs in children. A child is suddenly attacked during the night, having, perhaps, gone to bed apparently in perfect health. The breathing is labored and sonorous, the cough presents, in a marked degree, the shrill, ringing, crouped character. This causes great alarm, and the physician is sent for in urgent haste. This is a purely spasmodic affection, and, as a general rule, unattended with danger.

TREATMENT. Give an emetic of ipecac at once, and, after its operation, the bowels should be moved by some mild cathartic. A hot foot bath, and warm fomentations to the throat, may prove beneficial.

DIPHTHERIA.

Diphtheria may be defined as an epidemic sore throat, due to poisoning of the blood. It is attended with much prostration, and is characterized by the exudation of false membranes on the tonsils and adjacent parts. It runs a rapid course. When it does not end fatally, it is often followed by an alteration in the voice, partial paralysis of the muscles of deglutition, weakness of the upper extremities, and impaired vision. It is regarded as a contagious disease. It attacks both sexes, at all ages, though children seem to be especially obnoxious to it. It is most fatal to such as reside in damp situations and in badly-drained houses. Spring and autumn appear to be the seasons when its ravages are greatest.

Symptoms. This disease comes on very gradually, with feelings of depression and muscular debility, headache, nausea, slight diarrhœa, chilliness, and drowsiness. Before the throat is actually sore, a sense of stiffness in the neck is complained of. Soon the tonsils become inflamed and swollen, and the glands about the angles of the lower jaw get tender. As the disease progresses, the whole throat becomes more or less involved, and there are some pain and difficulty in swallowing in most cases.

It is probable that in some mild cases the inflammation begins to subside at this stage, and the patient is soon restored to health. But more commonly the characteristic feature of the disease now becomes manifested, and a plastic fibrinous material is effused. This exudation commences on the soft palate, or on one tonsil, or on the back of the throat, in the form of small ash-colored specks; these spots enlarge and run together, forming patches of considerable size. As the disease spreads, the false membrane increases in thickness and in extent; it usually becomes firmly attached to the mucous tissue beneath, and if it be forcibly removed, a new patch will be found at the end of a few hours. But if the exudation be cast off naturally, then either no new false membrane is formed, or only one which is much more filmy than the first. The membrane has been compared to wet parchment, or to damp, dirty wash-leather. It may spread forwards to the cheeks and gums, upwards into the nasal passages, downwards into the windpipe and œsophagus. When the membrane begins to separate and decompose, the patient's breath is rendered most offensive. As the lymphy deposit is cast off, we may have ulceration, sloughing, or gangrene of the mucous coat, or this tissue may gradually assume a healthy appearance.

In all cases, this is a very grave disease. Death may occur, even within thirty-six hours, from the intensity of the general disorder, or at a later period from the severity of its local effects, or from the occurrence of some complication.

The duration of the disease may be stated as commonly from three to twelve days.

Treatment. This disease is not controllable by any known specific remedy. The great object of treatment is to support the system, endeavoring to keep the patient alive until the disease has run its course. The complaint being one characterized by great prostration, the diet should consist of milk, beef tea, or essence of beef. Stimulants are also called for, and an adult may take, in severe cases, an ounce or two of brandy or whiskey every hour or two. For youth and children, the dose should be in proportion to age. The tincture of the chloride of iron, either with or without quinine, should also be given. The following is an excellent preparation: —

Take of	Sulphate of Quinine, . .	16 grains.
	Tincture of Chloride of Iron,	½ ounce.
	Water, ...	7½ ounces.

Mix. An adult may take a tablespoonful in a wineglassful of water, four times a day. A youth of fourteen years, one half tablespoonful; a child two to six years of age, from one half teaspoonful to a teaspoonful. Two drachms of chlorate of potassa may be dissolved in a pint of water, and used freely as a gargle. Small pieces of ice or snow may be continually held in the mouth, if the effect be agreeable. The tincture of chloride of iron, applied to the throat by means of a camel's-hair brush, several times in the twenty-four hours, generally proves beneficial in checking the exudation of false membrane.

This being a very serious disease, a physician, if one is to be obtained, should be early called to take charge of the case.

INFLUENZA.

Influenza, or epidemic catarrhal fever, is a disorder attended with great depression, chilliness, running from the eyes and nose, frontal headache, cough, restlessness, and fever. It arises at various periods from some peculiar condition or contamination of the atmosphere. The poisonous influence, whatever its nature may be, wings its way with greater celerity than the speed of human intercourse, while its progress seems uninfluenced by the season of the year. It is said to travel from east to west, and it seldom remains in one district more than six or eight weeks. Some visitations are more severe than others. It differs from a common cold in its greater severity, and especially in the amount of prostration to which it gives rise. Between the reception of the poison and the commencement of the symptoms, there is a period of incubation; but as to the duration of this we know nothing, since, in some well-observed cases it has appeared to be only ten or twelve hours, while in other instances it has been as many days. Young people seldom die of this disease; but amongst the aged the mortality has sometimes been large.

Symptoms. The chief symptoms of this mysterious affection are heat and dryness of skin, urgent frontal headache, soreness or tenderness of throat, hoarseness, harassing cough, shortness of breath, and disorders of the stomach, together with all the signs of nervous and muscular prostration, such as an uncommon degree of languor, debility, and lowness of spirits.

In favorable cases, this disease runs its course in about a week, leaving the patient very much debilitated.

Treatment. The patient should be kept in bed, and barley water and nourishing broths administered.

The following mixture may be given with benefit: —

Take of	Syrup of Squills, . . .	1 ounce.
	Syrup of Gum Arabic, . .	1 ounce.
	Sweet Spirits of Nitre, . .	1 ounce.
	Paregoric, ...	1 ounce.

Mix. One to two teaspoonfuls may be given three or four times in twenty-four hours.

If the bowels are constipated, a mild cathartic may be given. A mustard poultice to the chest, and the inhalation of the steam of hot water, may prove beneficial in severe cases.

When prostration is the predominant symptom, stimulants, such as wine or brandy, may be freely resorted to.

The subsequent debility will be the quickest removed by tonics, especially by quinine and iron.

WHOOPING COUGH. (*Pertussis.*)

Whooping cough is a contagious and infectious malady, characterized by a peculiar cough, occurring in paroxysms, terminated by vomiting. The disease makes its appearance in about a week after exposure. It occurs mostly in children, although adults are not wholly exempt from it. It rarely attacks the same person twice.

Symptoms. The disease generally sets in with the symptoms of a common cold, and it is not till the second or third week after the attack, and when the fever symptoms have somewhat abated, that it assumes its peculiar and characteristic paroxysmal form and whoop. The cough now comes on in distinct fits, each fit consisting in a series of violent and convulsive expirations, with congestion of the face, and threatening of instant suffocation, followed by a sudden and full inspiration, accompanied by a peculiar whoop, from which the disease has obtained its name. The convulsive coughing is renewed, and continues in the same manner as

before, till a quantity of mucus is thrown up from the lungs, or the contents of the stomach are evacuated by vomiting, or the fluid issues from the mouth and nostrils, mixed with blood, which usually terminates the fit. The patient then generally has an interval of perfect freedom from cough, and often expresses a desire for food; but when the fit has been very severe, it is followed by general languor and debility, hurried breathing, &c. The disease is usually most severe about the latter part of the fourth, or during the fifth week, after which the paroxysms become less severe. The frequency with which the paroxysms of cough recur, varies: there may be only two or three in a day, or as many in an hour. The duration of the disease varies, in different cases, from two or three weeks to three or four months. It frequently proves fatal when occurring in quite young children.

Treatment. In mild cases very little management is required; the patient should be warmly clothed, kept in doors, and fed with light nourishing food. In the more severe form of the disease, an emetic may prove beneficial, and the wine of ipecac will be as good as any; it may be given in teaspoonful doses, every ten minutes, until vomiting takes place. Mixture No. 28, given in one to two teaspoonful doses, three to five times a day, will be found beneficial in most cases.

The following mixture may be tried in cases which prove obstinate: —

Take of Sulphate of Zinc, . . .	32 grains.
Extract of Belladonna, . .	8 grains.
Water, ...	4 ounces.

Mix. A child three years old may take a teaspoonful, in a little water, four times a day. Every second day, the dose may be slightly increased, so that at the end of two weeks, two or three teaspoonfuls may be given at a time. The child's bowels should not be allowed to become constipated,

and care must be taken to prevent it from taking cold, lest bronchitis or lung fever set in.

BRONCHITIS.

By bronchitis, is meant an inflammation of the bronchial tubes. It may be either acute or chronic.

ACUTE BRONCHITIS.

This is a common disease, and occasionally proves serious in consequence of the inflammatory action spreading to the vesicular texture of the lungs.

Symptoms. Fever, a sense of tightness or constriction about the chest, hurried breathing, with wheezing, severe cough and expectoration, at first of a viscid, glaring mucus, which subsequently becomes purulent. The pulse is frequent, and often weak, the tongue foul, and there is headache, lassitude, sickness, and great anxiety.

By placing the ear to the chest, we may now hear dry, wheezing or whistling sounds, and after a time the sounds change in character in consequence of the inflamed mucous membrane pouring out a viscid, transparent, tenacious mucus. As the air passes through this mucus, we hear a moist, crepitating sound.

In favorable cases, this affection begins to decline between the fourth and eight day, and shortly either entirely subsides, or passes into the chronic form.

In severe or unfavorable cases, the disease may assume a more dangerous character; the strength becomes much reduced, signs of congestion of the lungs ensue, which may soon end in death.

Treatment. Give a thorough purgative, after which the following mixture may be taken with benefit: —

Take of	Spirit of Mindererus,	½ ounce.
	Sweet Spirit of Nitre,	½ ounce.
	Syrup of Squills,	½ ounce.
	Syrup of Ipecac,	2 drachms.
	Paregoric,	2 drachms.

Mix. One to two teaspoonfuls may be given to an adult, three or four times a day.

If there be much debility, mixture No. 24 may be given instead of the above.

A mustard poultice applied to the chest occasionally, and kept on each time as long as it can be conveniently borne, will prove beneficial. It may be followed by hot fomentations.

Light food should be given if the fever runs high, but when there is depression, good beef tea may be freely taken. The inhalation of the steam of hot water often proves serviceable.

CHRONIC BRONCHITIS.

This disease is generally the sequel of the acute form, and is very common in middle and advanced life.

Symptoms. The slighter forms are indicated only by habitual cough, some shortness of breath, and copious expectoration. During the summer little trouble is experienced from it, but it returns with cold weather, and lasts through the winter. After a time, when the patient's general health has become very much reduced, the cough continues even through the summer, and unless some effectual treatment is resorted to, the patient finally wears out, or dies of *bronchial consumption*.

Severe examples of chronic bronchitis, with abundant expectoration, are often taken by *quack consumption curers*, for cases of *pulmonary* consumption, and they then vaunt their very ordinary cures as *extraordinary*.

TREATMENT. This is a disease in which the inhalations of medicated vapors and atomized liquids prove very beneficial; but the limits of this work will not allow me to speak of all the preparations which may be used to advantage in this disease. R. 29 will prove excellent in many cases. The vapor of tar often proves serviceable.

Stimulating expectorants are also useful; and R. 24 may be taken with benefit in most cases.

If the patient is debilitated, iron, quinine, and cod-liver oil may be used to advantage.

The patient should dress warmly, and wear flannel next the skin, both winter and summer.

ASTHMA.

Asthma may be defined as great difficulty of breathing, accompanied with a wheezing sound of respiration, occurring in paroxysms, and ceasing at the end of a few hours, with mucus expectoration, more or less abundant.

SYMPTOMS. A fit of the asthma often occurs suddenly, without any warning; but in some cases it is preceded by headache and sleepiness, or by various digestive or other disturbances. The patient awakes towards morning with a sensation of suffocation or constriction about the chest, the difficulty of breathing gradually increasing until a fearful and most painful struggle for breath sets in. Various postures are assumed to facilitate the attempt at filling the lungs, and the patient often rushes to the open window, at which he will remain a long time, gasping for air. If the ear is now placed to the chest, we hear loud wheezing or shrill whistlings. The pulse is small and feeble, the eyes staring, and the countenance anxious. After a certain lapse of time, a remission comes. Cough ensues, with expectoration of little pellets of mucus, and soon the paroxysm ceases, to allow the sufferer to fall asleep.

During the interval which elapses between one asthmatic paroxysm and the next, the patient often enjoys fair health, and has his breathing quiet and free.

This disease is more common in men than in women. It is often hereditary, and it sets in at any time of life, though most frequently about the middle period. It may be uncomplicated; that is to say, the patient is healthy in all other respects, there being no lesion of the brain, lungs, heart, or other organs. This form is known as *spasmodic* asthma. In other cases it is complicated with, or indeed symptomatic of, some disorder, such as chronic bronchitis, heart disease, &c. When thus complicated or symptomatic, it is known as *symptomatic*, or *organic* asthma. Spasmodic asthma very seldom, if ever, directly destroys life. Many of its subjects live to a good old age, perhaps for the reason that they are obliged to take good care of themselves.

Treatment. Under this head must be considered the measures necessary to relieve the paroxysm, and those which may be employed in the hope of preventing or delaying its recurrence. The following emetic, given at the commencement of the attack, will be beneficial: —

Take of Wine of Ipecac, . . .	1 ounce.
Tincture of Lobelia, . .	½ ounce.

Mix. Two teaspoonfuls may be given in a little warm water, every fifteen minutes, until vomiting takes place. After the operation of the emetic, if the bowels are constipated, a purgative may be administered. The inhalation of mixture No. 30 will generally prove very beneficial.

Mustard poultices, applied to the back and front of the chest, seem occasionally to give relief. The inhalation of sulphuric ether will sometimes put an end to the paroxysm very speedily. Smoking stramonium leaves often does good. A warm climate is generally very beneficial to sufferers from this affection.

After the paroxysm has ceased, the general health of the patient should receive attention, with a view to prevent a recurrence of the trouble. It is always advisable, in these cases, to consult some good physician.

HAY ASTHMA.

This is a peculiar disease, which resembles a severe cold, to which asthmatic symptoms are frequently superadded.

Symptoms. There is headache, suffusion of the eyes, sneezing, irritation of the nose and throat, with a dry, harassing cough. Then at intervals there may be paroxysmal attacks of asthma, the difficulty of breathing being sometimes so urgent that the patient has the most distressing sensations of impending suffocation. This is not a common disorder.

Causes. It is supposed to arise from the inhalation of the aroma of spring grass or hay, or from the perfume of the *Nardus Stricta* when in flower, — a grass which is abundant in many grazing fields, for cattle will not eat it.

Exposure to the emanations of *powdered ipecac* will produce it in impressible individuals.

Treatment. The disease will probably have a duration of three or four weeks, if allowed to run its course without medical treatment, It may, however, usually be cut short by removal from the cause, sometimes residence at the seaside being effectual. In some cases the susceptibility to the disease has been destroyed by the use of certain drugs — iron, quinine, arsenic, and nux vomica.

During the paroxysm, inhaling R. 30 will generally give relief. Smoking tobacco is said to prove very beneficial for moderating the attack. Stramonium leaves may answer as well.

PLEURISY. (*Pleuritis.*)

By the term pleurisy, is meant inflammation of the pleura, which is the serous membrane investing the lungs, and lining the cavity of the chest.

Symptoms. Chills, followed by fever, and an acute lancinating pain in the side, called a "stitch." The pain is increased by the expansion of the lung in breathing, by coughing, by lying on the affected side, and by pressure. There is also a short, harsh cough, the skin is hot and dry, the cheeks flushed, the pulse hard and quick, and the urine is scanty and high-colored. If the ear be placed to the painful part of the chest, at this stage of the disease, we may hear the dry, inflamed membranes rubbing against each other, and producing a *friction sound;* if the hand be placed on the corresponding part of the chest this rubbing may also be felt. But this sound does not long continue; either the inflammation subsides, and the two surfaces of the pleura regain their natural moisture and smoothness, or the roughened and inflamed surfaces become adherent; or they become separated by the effusion of a serous or watery fluid, and a kind of dropsy results, known as *hydrothorax*, or water in the chest. If the pleurisy has been severe, the effusion becomes excessive, and the fluid accumulating in the sac of the pleura, compresses the yielding lung, suspends its functions, displaces the heart, and somewhat distends the sides of the chest. From one ounce to several pints of fluid may be effused. When the amount is great, there is much difficulty of breathing; and on gently tapping the diseased side with the ends of the fingers, we get a dull sound, very unlike that obtained from the well side, by the same process. At the same time, also, the sufferer is unable any longer to lay on the sound side, clearly because the movements of the healthy lung would be impeded by the superincumbent weight of the dropsical pleura. If the two sides of the chest

are measured, the side containing the effusion will be found the larger.

Causes. The most common cause of pleurisy is exposure to cold and wet. Mechanical injuries will also excite inflammation of the pleura. Thus the jagged ends of a fractured rib often give rise to it.

Treatment. We must first subdue the inflammation; and, secondly, promote the removal of its products. If the patient is very robust and plethoric, the fever high and pain severe, bleeding will give relief quicker than any other measure which can be employed. From half a pint to a pint of blood may be taken from a vein at the bend of the elbow; or six to twelve leeches may be applied about the seat of pain. In most cases I should use the leeches, and encourage bleeding from the bites for some time, by warm fomentations. When the pain is not very severe, instead of bleeding, a mustard poultice may be applied to the diseased side, and allowed to remain on as long as the patient can conveniently bear it, after which hot fomentations should be continually applied until relief is obtained.

The bowels must be moved by a smart purgative, which may be repeated, if necessary, every second or third day; the diet should consist of gruel, arrowroot, and broths; and cooling drinks are to be allowed. To relieve severe pain, give Dover's powder, in ten to fifteen grain doses, two or three times a day, if necessary.

If the fever is high, and the pulse quick and hard, the following mixture may prove beneficial: —

Take of Tincture of American Hellebore,	1½ drachms.
Sweet Spirit of Nitre, . .	6½ drachms.
Syrup of Gum Arabic, . .	1 ounce.

Mix. Shake before using. A teaspoonful may be given, in a little water, every third hour, to reduce the frequency of the pulse. Its effect must be closely watched, and if it causes vomiting, or much prostration, it should be discontin-

ued, and half a teaspoonful of sweet spirit of nitre, three or four times a day, substituted for it. If these measures prove insufficient, and effusion takes place, we then endeavor to promote absorption.

The patient must be kept on a moderate diet, free from stimulants, and purgatives and diuretics administered. A succession of blisters to the side may do good.

The following mixture will often prove serviceable: —

Take of Iodide of Potassium, . .	4 scruples.
Tincture of Digitalis, .	1½ drachms.
Tincture of Squills, . .	3½ drachms.
Simple Syrup, . . .	11 drachms.

Mix. Give a teaspoonful, in water, three times a day. Tonics, such as iron, quinine, &c., may also be required. When these means fail, tapping the chest, so as to let the fluid out, has been resorted to, on many occasions, with success. A good physician should always be consulted in these cases.

LUNG FEVER. (*Pneumonia.*)

Lung fever, or pneumonia, is an acute inflammation of the substance of the lungs, and consists of three stages; viz., *first*, that of *congestion*, or engorgement; *secondly*, that of *red hepatization;* and, *thirdly*, that of *gray hepatization*, or purulent infiltration.

In the first stage, the substance of the lung becomes loaded with blood; and if we listen to the chest, when the lung is in this condition, we shall hear a fine, crepitating sound, resembling that produced by rubbing a lock of one's own hair between the finger and thumb, close to the ear.

If the inflammation proceeds, it passes into the *second stage*, in which the spongy character of the lung is lost, and it becomes hard and solid, resembling the cut surface of the liver, whence it is said to be *hepatized*. If we now gently

tap the chest with the ends of the fingers, there is dulness over the whole of the affected part. And if we listen to the chest, no crepitating will be heard. We now come to the third stage, which consists of a diffused formation of matter in the pulmonary tissue.

If the inflammation subsides before the stage of purulent infiltration, as it usually does, then the liver-like condition of the lung may remain permanent, or may gradually cease. In the latter case we shall find the air slowly re-entering the lung, as will be indicated by a return of the crepitating sound.

In each stage there is fever, more or less pain in some part of the chest, most severe at the commencement; accelerated and oppressed breathing; occasionally delirium; cough, and expectoration of a viscid, *rust-colored sputa*, which unite into a mass so tenacious that even inversion of the vessel containing them will not detach them.

Pneumonia may affect one or both lungs; or, technically speaking, may be double or single.

The right lung suffers twice as often as the left; about once in eight cases both are affected. The lower lobes are more obnoxious to inflammation than the upper. The average duration of the disease, when uncomplicated, is about two weeks; when complicated, about three.

More or less bronchitis almost always accompanies pneumonia. It may occur with or without pleurisy.

Treatment. When first taken, attention must be paid to the bowels, and a dose of castor oil may be given if necessary. The patient should go to bed and remain quiet, the air of the sick room being kept moist by the evaporation of boiling water. The temperature of the room should not be allowed to fall below 65° Fahrenheit. From half a teaspoonful to a teaspoonful of R. 21 may be given every two, three, or four hours, to promote the action of the skin. It should be well diluted with water. Hot fomentations may be applied to the affected side of the chest, and when both

lungs are affected, apply to both sides. The patient's diet should be light, as gruel, milk, &c., and he may have for drink cold water or lemonade.

As soon as there are any indications of greater weakness than the patient can support, give freely of strong beef tea, or essence of beef, and wine or brandy at regular intervals.

When the crisis occurs, by sweating or by diarrhœa, care must be taken not to check it unnecessarily. During convalescence, milk, raw eggs, and animal food may be allowed.

During this disease, whenever there is much restlessness, ten to twenty-five drops of laudanum, once or twice a day, or oftener, will prove very beneficial.

When the patient does not seem to regain his strength readily, iron and quinine may be given.

CONSUMPTION. (*Phthisis.*)

Pulmonary consumption, the commonest and most fata malady to which the human race is subject, is a constitutional disease, which plays its most conspicuous part in the lungs. A morbid product, called tubercle, or tuberculous matter, is found deposited in the areolar tissue, between the air cells, in the air cells themselves, and in the smaller bronchial tubes communicating with them. Wherever a particle of this matter is deposited from the blood, it continues to increase by constant addition. In its hard state it is called crude tubercle. After a time inflammation arises in the pulmonary substance surrounding the deposit, suppuration occurs, the tubercular matter softens and breaks down, and at length is gradually expelled or raised by coughing, leaving cavities or ulcers behind, of various sizes. Sometimes these cavities close and heal, and the patient recovers; more frequently tubercular matter continues to be deposited on their sides, and in other parts of the lungs, until these organs become diseased to an extent incompatible with the continuance of life.

Symptoms. The disease usually begins with a short, dry cough, occurring, most frequently, on first rising in the morning, and so slight as to become habitual before it excites the attention of the patient. It is sometimes accompanied by slight difficulty of breathing, increased on exertion, and the patient generally loses flesh, is soon fatigued, and easily thrown into a perspiration; or he complains of unusual coldness of the body and extremities. Slight dyspeptic symptoms, diarrhœa, frontal headache, and a small, frequent, quick pulse, are also among the early symptoms; and, on inquiry, the patient will often recollect that at some previous period he raised a little blood.

After these symptoms have continued for a variable period of several weeks, months, or even years, in consequence of a cold, or some trivial exciting cause, the cough becomes more constant and troublesome, and is attended by expectoration, at first of a frothy mucus, afterwards of a more viscid and opaque substance, often mixed with small, round particles of tubercular matter, with pus, or with streaks of blood; or bleeding from the lungs occurs in a more marked form, and to a greater extent.

As the disease advances the cough and difficulty in breathing become more urgent, the expectoration more abundant, the emaciation and weakness greater, the pulse more frequent; there are chills at noon or in the afternoon; the face flushes towards evening, the palms of the hands and soles of the feet are affected with burning heat; in a word, *hectic fever* sets in, followed, towards morning, by profuse perspiration. The patient now rapidly loses flesh; diarrhœa, either due to disordered secretions or to ulcerations of the mucous membrane of the intestines, often sets in and increases the debility; the lower extremities frequently become painful and swollen, and death soon ends the scene, — the mental faculties remaining clear until the last few hours.

This disease is by some divided into three stages. Dur-

ing the *first*, that in which tubercles become developed in the lungs, neither the local nor the general symptoms warrant us in announcing the presence of any other affection than a severe catarrh. In the *second* stage, the tubercles increase both in number and size, so as to compress and obstruct the substance of the lung, and occasion difficulty of breathing. In the *third*, or last stage, the tubercles become softened; they make an opening for themselves through some of the surrounding or involved bronchial tubes, and being thus evacuated, they give rise to the formation of cavities.

By *auscultation*, or listening to the sounds made by the air in passing through the various structures of the lungs in the process of breathing, physicians can learn much in regard to the condition of those organs. By *percussing*, or gently tapping the chest, they also learn something in regard to any internal changes which may have taken place. But auscultation and percussion can only be practised to advantage by physicians whose ears have become accustomed to the sounds given forth from the chest, both in health and disease, and who have also learned what those sounds indicate.

Causes, &c. Consumption may be inherited or it may be acquired. It is not contagious. The left lung suffers more frequently than the right. The upper and back parts of the upper lobes of the lungs are ordinarily the situations in which the tubercular deposit first takes place.

No period of life is exempt from this disease, and it may affect the fœtus *in utero;* but it is most liable to be developed between the ages of twenty and thirty. In this country, at least one death in every eight is caused by consumption.

Among the *predisposing causes*, may be mentioned the scrofulous diathesis; sedentary life; residence in a low, damp, and marshy district; a close and confined atmosphere; insufficient and unwholesome food; depressing passions of the mind; dissipation and intemperance; profuse evacuations; immoderate indulgence of the sensual passions; and all causes of debility.

As *exciting causes*, pneumonia (lung fever), catarrh, asthma, syphilis, small pox, scarlet fever, and measles may be mentioned. The dust to which certain artificers are exposed, — as needle-pointers, stone-cutters, pearl button-makers, millers, &c., — often excites disease in the throat, bronchial tubes, and lungs.

Duration. The average is about two years. In *acute* cases from one month to one year. In *chronic* cases, death often takes place after the lapse of years, and after repeated attacks.

Treatment. As this is a constitutional disease, the great object of treatment is the removal of this constitutional morbid condition. The chief end to be kept in view is the prevention of further tubercular deposit; or, in other words, an *arrest of the disease*. It is *extremely* desirable for the arrest to take place as quickly as possible, in order that the amount of deposit may be limited, and the amount of damage to the lungs proportionably small. And with a view to a speedy arrest, the importance of early detecting the disease can hardly be overrated.

This disease is not removable by any known special remedy or remedies. This, however, is by no means saying that there are not remedies useful in cases of pulmonary consumption. Important indications are to be fulfilled by remedies, but it should be clearly understood that far more reliance is to be placed on hygienic, than on medicinal measures of treatment. Speaking in general terms, everything is to be avoided which tends to impair the appetite, disorder digestion, and lower the vital powers.

The measures indicated are those which tend to strengthen and invigorate. These relate to diet, exercise in the open air, clothing, mental encouragement, and change of climate.

The diet of consumptive patients should be generous as regards quantity, quality, and variety. The articles should be highly nutritious, and adapted to the digestive powers. All the varieties of wholesome food which the patient is

able to take with relish should be allowed, and the appetite should be encouraged as much as possible. Meats, milk, farinaceous articles, and the different vegetables, are to be combined in relative proportions, according to the choice, habits, and experience in individual cases. It is desirable that cream, butter, and other fatty articles, should enter into the diet as largely as possible, without inducing disgust and disorder of digestion. The same remark applies to sugar.

Exercise in the open air, or out-door life, is, of all measures, the most important. The physical exercise should be accompanied by either mental recreation or occupations which interest the mind. It should, as far as possible, be incidental to pursuits which engage the attention. Adapted simply as a hygienic measure, it will rarely be persisted in. It is often essential, therefore, for patients to make a radical change in business, or, if they are able to devote their time to the restoration of health, hunting, fishing, sporting, travelling, etc., are to be resorted to as a means of securing the union of out-door life with an agreeable exercise of the mental faculties. The body should be protected against atmospherical changes by warm clothing; but a superfluity of clothing is to be avoided. The object is to provide adequate protection, without an undue accumulation of heat and perspiration. In a cold or temperate latitude, during the winter season, a waistcoat of buckskin or chamois leather, worn during the daytime, over a light woollen or silk shirt, is to be recommended to patients of either sex, as securing the proper protection, without the inconvenience of being burdened with an overplus of garments. The feet should be well protected against cold and wet.

Properly clothed, the patient, if he has strength enough to go out of doors, should rarely be kept within by the state of the weather, but should resolutely keep up habits of out-door life, despite the ordinary changes of temperature and winds, remaining in the house only on inclement days.

The cool or cold sponge bath, taken daily, appears to

benefit some consumptive patients. It may be safely tried and continued, provided it be followed by an agreeable glow. The proportion of cases in which an arrest of the disease is effected, is sufficient to encourage patients strongly to employ the hygienic measures which have been briefly considered. The influence of the disease on the mind is to induce either an expectation of recovery without effort, or resignation to death. It is important for patients to understand that very much depends on their own exertions. One of the great difficulties in the way of successful management, is a passive, patient, tranquil frame of mind, which cannot be roused to any vigorous efforts. Persons endowed with resolution, energy, and perseverance, other things being equal, are more likely to struggle successfully with the disease than those who are deficient in these mental qualities.

Change of climate in this disease is frequently beneficial, but it may be taken for granted that there is no *specific* influence in any climate. Observation shows that different climates are suited to different cases. As a rule, the qualities which render a climate favorable are uniformity and dryness. As regards the latter, the rule is, perhaps, not without exceptions: some patients appear to do best in situations in which the atmosphere is warm and moist. With respect to temperature, a uniform cold climate is best for some cases, and a uniform warm climate for other cases. It has become quite customary of late years to send patients to a cold latitude, and in many instances the climate of Minnesota has proved highly serviceable. In other instances a change to a warm climate has appeared to accomplish all that could be desired. In deciding whether a cold or warm climate will be likely to prove most advantageous, the feelings and choice of the patient are to have considerable weight. If, when in health, more vigor and enjoyment are habitually experienced in summer than in winter, a warm climate will probably be best, and if the reverse be true, a cold climate is to be preferred. The condition as regards

feebleness is an essential point. If the patient be so feeble as not to be able to live out of doors in cold weather, or if the reaction from the impression of cold be slow and imperfect, a warm climate is more suitable. It is rarely proper to send patients to a cold climate, if the disease be considerably advanced; and, as a rule, a cold climate is better suited to male than female patients. With reference to the particular situation to be selected, it should contain resources for occupation and mental interest. There must be inducements for out-door life. It is frequently better to move about from one place to another than to remain stationary: as soon as a place becomes tiresome, it is best to leave it. Travelling in foreign countries, without any special regard to climate, is often the best plan, the advantage consisting in the interest and inducements to exercise derived from a succession of new scenes. A sea voyage is generally useful, and if patients are fond of the sea, a long voyage, if practicable, may be advisable. Places which are especially the resort of patients, are to be avoided. The moral effect of seeing daily examples of the different stages of the disease is unfavorable. A change is often useful when there is no superiority on the score of climate, because it is in this way only, in certain cases, that relief from the cares and anxieties of business, can be secured. The habits and tastes of the patient are to be considered. Persons who are dependent on the associations and comforts of home and friends for their happiness, will not be likely to be benefited by being sent away, especially if alone and among strangers.

The stage of the disease and the rapidity of its progress are points of great importance. It is truly a cruel act to send to a distance patients who are in a condition admitting of but little prospect of improvement, and who will probably not live to return. Although change of climate is often an important element in the treatment of this disease, it must be borne in mind that this change is to be resorted to only in the *early stages* and in *chronic* cases. When sof-

tening of the tubercles, or the *third stage* has begun, it will generally be too late to expect much benefit.

Passing now to consider the remedies which enter into the management of this disease, I will speak first of cod-liver oil, which may be regarded partly as an article of food, and partly as a medicinal agent. To whichever of its constituents its efficacy may be due, there cannot be a doubt that it is, beyond all others, the remedy on which most reliance can be placed. Of course its virtues are most strikingly displayed in the earlier stages of the disorder, and in cases where there is not a strong inherited predisposition to tubercular disease; but speaking generally, it may be stated that the oil proves serviceable at all ages, and in all stages of the disorder. The symptoms and physical signs often ameliorate under its administration with a rapidity which is sometimes quite surprising; and in favorable cases the weight of the body increases, the cough and expectoration decrease, the appetite improves, and the night sweats, and other unfavorable symptoms, gradually disappear.

The improvement which results from cod-liver oil is not found to follow the administration of neat's-foot and other oils, which equally supply an oily matter; and as in administering cod-liver oil we are conveying into the system iodine, bromine, phosphorus, and other matters which are known to exercise a powerful influence on the animal economy, it is probable that the peculiar efficacy of cod-liver oil depends partly on the supply of oil which it affords, but partly also on its containing elements which are wanting in most cases of consumption, and which in such cases it satisfactorily supplies. But without regard to how or why it proves beneficial, its extraordinary virtues cannot be doubted, and it ought to be administered in all cases of consumption in which it does not derange the stomach. Not only does it produce increase of weight, but the patients, whilst taking it, gain strength and color.

Sometimes the oil thoroughly disagrees with the stomach,

giving rise to nausea, acid eructations, and even vomiting, together with feverish derangement of the system. In these instances it must either be omitted altogether, or administered in small doses, and, at all events, it must be discontinued until the stomach is brought into better order, and has the power to digest and assimilate it.

But when the oil is tolerated, and under ordinary circumstances, a tablespoonful may be given two, three, or even four times a day, and the dose may be cautiously increased to three or four tablespoonfuls. It should be taken about an hour after meals, and may be given floating on a glass of wine, whiskey, ale, porter, or milk, whichever proves most beneficial and agreeable to the patient. It is not sufficient to persevere in the administration of the oil until some sensible improvement has taken place; the very fact of improvement should rather be regarded as a stimulus to further perseverance. The deposit of tubercle is so clearly connected with constitutional derangement, and any material alteration in the constitution is notoriously effected so very slowly, requiring not weeks or months, but rather years for its completion, that if the patient's safety be consulted, we must urge him to take the oil for many months after he considers his health reëstablished. If he refuses to do so, the probability will be that the improvement will be only temporary, and, after a short interval of comparative tranquillity, the system will again get out of order, mischief will recommence in an active form, and our power may not avail to arrest it; whereas if the patient can be persuaded to continue taking the oil for a year or two, omitting it only three or four times in the twelvemonth, for three weeks or a month at a time, while he is enjoying change of air, and is otherwise under peculiarly favorable hygienic conditions, it is probable that in a considerable proportion of cases the tendency to the disease will not only be arrested, but the improvement which has occurred will be maintained, even after the oil has been discontinued.

Alcoholic stimulants seem, in a certain proportion of cases, to exert a curative influence, and may be taken in connection with the cod-liver oil, or without it, when that article cannot be tolerated. Whiskey, wine, brandy, porter, or ale, whichever seems to agree best with the patient, may be taken, in proper quantity, three or four times a day. If whiskey or brandy is used, the dose may be from two to four tablespoonfuls; if wine suits best, from three to six tablespoonfuls. When porter or ale agree best, a small tumblerful will be a proper dose.

The fusil oil has been thought by some to affect favorably the pulmonary symptoms, but I do not believe it amounts to much as a curative agent. When used, three to five drops may be taken in a little sweetened water, three times a day.

Tonics, as the preparations of iron, Peruvian bark, or quinine, often prove serviceable in this disease. Medicines to allay superfluous cough — that is, cough not required for expectoration — are useful; but expectorant remedies, as a rule, are not called for. If they diminish appetite, occasion nausea, or disturb digestion, they do more harm than good. Soothing inhalations (R. 30, R. 31) are sometimes useful in allaying the irritation which excites cough.

The following mixture may often prove serviceable in allaying a harsh cough: —

Take of	Sulphate of Morphia, . . .	1 grain.
	Syrup of Wild Cherry, . .	1 ounce.
	Syrup of Balsam of Tolu, . .	½ ounce.
	Mucilage of Gum Arabic, .	½ ounce.

Mix. A teaspoonful may be taken three or four times a day.

When night sweats occur, R. 146 may prove beneficial. Gallic acid, in five grain doses, three times a day, often proves serviceable.

For diarrhœa, R. 71, 72, or 74, will prove useful.

Pain in the chest should be met by counter-irritation, with R. 81 or 85.

Fistula in ano is another symptom, occurring frequently, which must not be lightly dealt with. As long as the discharge is insignificant in amount, and the patient's mind is not seriously disturbed by its continuance, so long is it advisable to confine our efforts to the treatment of the constitutional malady, and not to disturb the fistula. Any attempt at curing it by operation under these circumstances would probably be followed by an immediate increase of the cough and other pectoral symptoms, and therefore would be highly injudicious. In some instances the discharge is profuse, and constitutes an important source of waste, and the patient is so distressed and alarmed at its continuance, that no treatment can be of any avail until his nervous apprehensions are overcome. He can neither eat nor sleep for thinking of it, and his whole system is depressed in consequence.

In such cases, the greatest benefit may result from an operation, combined with the formation of an issue in the arm, the use of a proper diet, and the administration of cod-liver oil, quinine, iron, and other appropriate remedies.

SPITTING OF BLOOD. (*Hæmoptysis.*)

Spitting of blood is one of the most alarming incidents to which we are liable. It very often occurs without any warning. A slight tickling in the throat, a little cough, probably produced by the blood let loose in the air-cells of the lungs, and a slightly saltish taste in the mouth, are all the inconveniences commonly felt in spitting blood. Sometimes the blood will be spit up in small quantities, and at other times in large mouthfuls. The blood which comes from the lungs is always of a light-red color, and comes up by *coughing*. Blood which comes from the stomach is always of a dark color, often mixed with particles of food,

and comes up by *vomiting*. Blood is sometimes discharged from the mouth, back part of the nasal passages, and the throat, and is liable to be confounded with raising it from the lungs. When it comes from the mouth merely, there is no coughing or vomiting, and when it comes from the upper part of the throat, and the posterior nares, it is brought out by mere hawking, and if the throat is examined, blood may be seen issuing from the capillary vessels.

Treatment. The patient should be placed in an easy chair, or on a bed, with the head and shoulders raised, as the blood cannot so easily issue from the vessels of the lungs in that position as when he lies down. He should be directed not to talk, or to use exertion of any kind. He should be allowed free air, and only a light covering.

A teaspoonful or two of common fine salt, taken into the mouth and swallowed, sometimes seems to be efficacious in arresting hemorrhage from the lungs, and may be given at once. Small pieces of ice held in the mouth may do some good. Powders of Gallic acid and opium (R. 72) often prove very beneficial.

The following mixture of turpentine frequently proves serviceable: —

Take of	Sulphate of Morphia, . . .	1 grain.
	Oil of Turpentine, . . .	3 drachms.
	Mucilage of Gum Arabic, . .	1 ounce.
	Syrup of Balsam of Tolu, .	5 drachms.

Mix. Shake before using, and take a teaspoonful every hour or two. The bowels should generally be moved, and a Rochelle powder, or dose of Epsom salts, may be given for that purpose.

Cold water or lemonade may be drank to allay thirst. A light diet should be strictly adhered to until all appearances of bleeding have ceased.

CHAPTER VI.

DISEASES OF THE HEART, &c.

PALPITATION.

The term palpitation is given to frequent, strong, and tumultuous movements of the heart, without appreciable organic lesion.

When existing in an extreme degree, the beats of the heart are both heard and felt by the patient, and seen by the bystander. The palpitation is attended by a painful sensation of sinking, referred to the region of the heart, or pit of the stomach, and spoken of as a "sinking at the heart." In some cases there is a tendency to fainting. It generally occurs in persons of a nervous temperament.

Causes. The exciting causes are strong mental emotions, — joy, grief, anger, sadness, fear, anxiety, violent exercise, excessive use of tobacco, tea, or coffee; debility caused by chronic diseases, or occurring during convalescence from fevers, or other acute diseases; excessive loss of blood, want of nourishment, intemperance, want of sleep, continued anxiety and distress, dissipation and debauchery; excessive sexual intercourse; onanism. In females, "*change of life.*"

Treatment. Remove the causes of the trouble, if possible, and improve the general health.

The following mixture will be found useful in controlling the action of the heart: —

Take of Tincture of Digitalis, . .	½ ounce.
Fluid Extract of Cimicifuga, .	½ ounce.
Compound Tincture of Lavender,	½ ounce.
Simple Syrup, ...	2½ ounces.

Mix. A teaspoonful may be taken three times a day for a week, when it should be omitted for a time, and resumed if necessary.

ANGINA PECTORIS.

Angina pectoris is a paroxysmal disease, which has been termed a *disorder of the breast.*

Symptoms. Those who are afflicted with this disease are seized whilst they are walking, and more particularly when they walk soon after eating, with a painful and most disagreeable sensation in the breast, which seems as if it would take their life away if it were to increase or to continue. The moment they stand still, all this uneasiness vanishes. In all other respects the patients are, at the beginning of this disorder, perfectly well, and in particular have no hurried breathing, from which it is totally different.

The duration of the seizure rarely exceeds a few minutes, though it may last for half an hour, or an hour, or even longer. The attacks occur at uncertain intervals of weeks or months; in confirmed cases the periods of recurrence approximate more and more with each successive paroxysm. The seizure may come on at any time, not only when the patient is walking, but even when in bed. The pain is most severe, and is attended with a feeling as if life were about to cease: in some cases the paroxysm has at once destroyed life.

No favorable prediction can be made in regard to this disease; for if death does not occur in the first or second seizure, it generally does so in some subsequent attack. The disease occurs most frequently in advanced life, and is much

more common in men than in women. In some few instances it has seemed to have some connection with gout.

Treatment. During a paroxysm administer stimulants, as whiskey, or brandy, and of anti-spasmodics, such as ether, opium, &c.

A belladonna plaster, worn constantly over the region of the heart, may do good.

The return of the seizure is to be guarded against by improving the general health, by great attention to diet, and by the avoidance of stimulants, excessive exercise, and all mental excitement.

PERICARDITIS.

Pericarditis, or inflammation of the external covering of the heart, is a grave disease.

Causes. It often arises from acute rheumatism, from the contaminated state of the blood produced by disease of the kidneys, from damp and cold, and from mechanical injuries,

Symptoms. High fever; pain referred to the region of the heart, often darting through to the left shoulder blade, upwards to the collar bone and shoulder, and down the arm; violent palpitation, the motions of the heart being tumultuous, and perceptible at a distance from the patient; irregularity of the pulse, hurried breathing, incapacity of lying on the left side, strong pulsation of the arteries of the neck, anxiety of the countenance, and frequently noises in the ears, giddiness, and bleeding from the nose.

Treatment. If the disease is not checked quickly, fluid becomes effused into the pericardium, or heart-case, and when such is the result, a large blister may be placed over the part.

At the commencement of the disease, give a thorough purgative, as an ounce of Epsom salts, or one composed of five grains of calomel and fifteen of jalap. If the inflammation be of a rheumatic character, the treatment laid down for

acute rheumatism will be proper. Opium in some form may be given to allay pain. At first the patient's diet should be light, consisting of gruel, arrowroot, and mutton broth. As soon as the strength begins to fail, however, the diet must be more strengthening, and milk, strong beef tea, and wine freely allowed.

ENDOCARDITIS.

Endocarditis is an inflammation of the membrane which lines the interior of the heart and its valves. Severe organic disease arises from it.

SYMPTOMS. A sense of oppression and uneasiness about the region of the heart, fever, small, feeble, and intermittent pulse, great anxiety, cold sweats, oppressive difficulty in breathing, fainting, &c. When the inflammation is only of limited extent, or when it assumes a chronic form, the symptoms are much milder and more obscure.

TREATMENT. The same as recommended for pericarditis.

BLUE DISEASE. (*Cyanosis.*)

This disease is characterized by a blue or purplish discoloration of the skin. It generally arises from some malformation of the heart, permitting direct communication between the right and left cavities.

TREATMENT. This must be simply palliative, the organic cause being irremediable.

OTHER DISEASES OF THE HEART.

In addition to the diseases already mentioned, there are others of an organic or structural character, as *enlargement* (hypertrophy) and *diminution* (atrophy) of the heart; also

valvular disease, *fatty degeneration*, *dilatation*, &c.; but as these diseases can only be detected and properly managed by a physician, it will be useless for me to treat of them in this work.

Persons afflicted with organic disease of the heart have more or less trouble at all times; but in cases where the disease is *purely functional*, there will be times when no trouble whatever is experienced.

All who are afflicted with disease of the heart should live temperately and regularly, and avoid excitement.

DISEASES OF THE BLOOD.

SCURVY. (*Scorbutus.*)

This disease consists in a peculiar depraved state of the blood, the nature of which is not clearly understood.

Symptoms. This disease commences with a feeling of languor, or general debility, and mental despondency; a sense of fatigue is experienced on the slightest exertion; the face is either pale or sallow, and presents an appearance of puffiness; the gums are swollen, soft, and of a purplish color, and bleed easily; the breath becomes offensive, and small purple spots appear over the body. These spots, which are sometimes very numerous, are generally small and circular, resembling flea-bites; but often, especially when the disease is a little advanced, we meet with other spots as large as the palm of the hand, sometimes much larger, in which the skin is of a variegated violet and green tint, and which resemble in every respect the marks produced by a severe bruise.

In advanced stages of the disease, the complexion has a more dingy, and somewhat brownish hue; the gums are

more swelled and more livid, forming in some cases a black, spongy mass, which completely covers the teeth; the teeth themselves become loose, and frequently drop out, and the debility is such, that the slightest exertion, even the erect posture, causes breathlessness and palpitation, and not unfrequently an alarming faintness. Bleeding frequently occurs from mucous surfaces, and the feet become swollen. The tongue and appetite often continue unaffected. When death takes places, it is produced either by the debility or hemorrhage, the intellect remaining sound to the last.

Causes. The chief cause is the deprivation of proper vegetable food. Other causes may contribute, such as long-continued exposure, fatigue, the depressing passions, &c. The exclusion of fresh vegetable food will not produce it, provided *fresh* animal food can be procured. It occurs most frequently on board of ships on long voyages, and occasionally, also, on land, under similar circumstances.

Treatment. This is very simple; all that is requisite is to remove the cause by giving plenty of *fresh* vegetable food and acids, especially lemon juice or citric acid. Cabbages and potatoes are also excellent anti-scorbutics; but oranges, lemons, or fruits of that class, if they can be procured, should be preferred. The salutary effect of them is extraordinary, and such as would scarcely be imagined by persons who have not witnessed it.

If the state of the gums be such as to prevent the patient from masticating, he should be kept for a few days on milk diet or on soups, in addition to the fruits; but as soon as possible, *fresh* animal food and vegetables should be given. If a patient be very feeble, wine, ale, or porter may be taken.

PURPURA.

This disease is characterized by the appearance of livid or purplish spots, generally commencing on the extremities. Two varieties are described — *simple purpura*, and *purpura hemorrhagica*, although it is probable they do not essentially differ; in the latter we may have hemorrhage from the bowels, lungs, nose, gums, &c.

In some cases there are constitutional symptoms, as in scurvy, especially neuralgic pains in the back. It appears often in successive crops, the spots being usually small, but at times becoming very large by increase of the effusion. Occasionally it is periodical. It is not elevated, nor is it accompanied by any sensations. It is simply an effusion of the coloring matter of the blood.

Causes. Not well understood. It occurs in depraved constitutions, as a general rule, though this is not always the case; it is more common in the young and in the very old. It most resembles scurvy in its general character, though it differs from it in not being prevented nor cured by fresh vegetable food. In purpura, the gums, although purplish, do not soften, nor swell, nor ulcerate, as in scurvy.

Treatment. The chief indication is to correct the low state of the blood by fresh air, good food, and tonics, as the preparations of iron, quinine, &c.

A milk diet is often very beneficial.

Astringents and opium are sometimes required to check hemorrhage, and in such cases the following powders will prove serviceable.

Take of Gallic Acid,	. . .	2 drachms.
Powdered Opium,	. .	8 grains.

Mix, and divide into twelve powders. One may be taken in syrup, three or four times a day. Perfect rest is essential in severe cases.

CHAPTER VII.

DISEASES OF THE ORGANS OF DIGESTION.

INFLAMMATION OF THE TONGUE. (*Glossitis.*)

Symptoms. Pain, heat, and swelling; the tongue of a deeper red color than usual, and occasionally the swelling proceeds to such an extent that the cavity of the mouth is not large enough to contain the organ, and it projects beyond the teeth. This condition, which often occurs very rapidly, sometimes in a few hours, is attended with urgent increased frequency of breathing, and requires prompt attention.

Treatment. Active purgatives should be administered by means of injections, and the vapor of hot water may be perseveringly inhaled. Six or eight leeches applied around the edge of the lower jaw will generally prove very beneficial. In severe cases, send for a physician without delay.

APHTHA. THRUSH. CANKER.

Symptoms. Small, round, white specks, or patches, scattered over the tongue and lining membrane of the mouth. They form a special disease in infancy. In adult age they are apt to appear in the course of other diseases. In some forms of this disease, microscopical parasitic plants are said to be developed in large quantity, and are, in fact, the cause of the disease.

TREATMENT. The treatment of this disease consists in the use of alteratives (R. 67, 68) and tonics (R. 59, 60), and the application to the aphthous parts of the following preparation: —

Take of Powdered Borax, . . . 1 drachm.
Clarified Honey, . . . 1 ounce.

Mix. Apply to the canker spots, two or three times a day, using a camel's-hair brush.

The following mixture is said to be very efficacious in cases attended with the formation of parasitic plants: —

Take of Sulphite of Soda, . . . 1 drachm.
Rose Water, ... 1 ounce.

Mix. Apply to the aphthous spots, with a camel's-hair brush, two or three times a day.

MUMPS. (*Parotitis.*)

This is a specific contagious inflammatory affection of the salivary glands, and of the parotid gland especially.

SYMPTOMS. Slight fever, with swelling and soreness beneath and in front of one or both ears, the swelling often extending along the neck to the chin, and involving the submaxillary glands. The disease reaches its height in four or five days, and then declines.

TREATMENT. Give a gentle laxative, as a Rochelle powder, or small dose of castor oil. If there is much fever, R. 21 may be given, and hot fomentations made to the swollen parts.

INFLAMMATORY SORE THROAT. (*Tonsillitis.*)

Inflammatory sore throat, sometimes termed *quinsy*, manifests itself by smart fever, redness and swelling of the

fauces and tonsils, and difficulty of swallowing, together with, in severe cases, pain shooting from the throat to the ear, along the course of the Eustachian tube. Under ordinary circumstances the inflammation runs a certain course, and terminates by resolution in a few days, merely leaving the tonsils enlarged; when violent and prolonged, however, it frequently leads to abscess in one or both tonsils. Chills often announce the formation of matter, and the pain is very severe until the abscess bursts, or is opened artificially.

Causes. The principal exciting cause of quinsy is cold. The liability to it is increased by repetitions of the attacks.

Treatment. A dose or two of some cooling purgative, as Epsom salts, and hot fomentations, or flaxseed meal poultices to the throat, will prove serviceable. Inhaling the steam of hot water often gives great relief. In severe cases the outside of the throat may be painted once or twice a day, for two or three days, with the tincture of iodine.

DYSPEPSIA.

This is one of the most common diseases which physicians have to treat. Anything which interferes with the healthy action of the stomach will give rise to it.

Symptoms. The symptoms vary, but the most constant are loss of appetite, flatulence, heartburn, a sense of fulness and oppression after eating, or a feeling of languor and depression, relieved by taking food. These symptoms, variously combined, and generally accompanied by some disorder in the functions of the bowels, in the form of constipation, diarrhœa, or the two alternately, and with more or less derangement in the functions of the liver, constitute the most common form of dyspepsia. In addition to the above, we may have cold extremities, headache, dizziness, a foul tongue, singing in the ears, pyrosis, &c.

Causes. Debility, want of exercise, food difficult of

digestion, overloading the stomach with food, liquids in excess, especially hot tea and coffee; too short or too long intervals between meals; the abuse of spiritous liquors, opium, and tobacco; the frequent use of drastic purgatives; exercise immediately after taking food; disease of the liver, &c. Dyspepsia is a frequent precursor of pulmonary consumption.

Treatment. In treating dyspepsia, we must first endeavor to correct any bad habits into which the patient may have fallen, and to regulate the diet. Then we must attempt to restore tone to the stomach, and at the same time palliate urgent symptoms as they arise. The most important step to be taken in the cure of dyspepsia is to point out to the patient the necessity of changing such habits and pursuits as may have tended to give rise to the disease, and continue to aggravate it. Unless the causes of the disease are sought out and removed, no permanent benefit need be expected from treatment.

Digestion is always very much improved by those means which invigorate the system generally, as by rest and retiring early, relaxation from severe studies, or from the harassing cares and anxieties of business, change of air, sea bathing, cold or tepid sponging, horse exercise, the disuse of tobacco and of alcoholic stimulants, where these have been too freely indulged in, &c.

The regulation of the diet is of the greatest importance. In severe cases, it may be well to give the stomach a complete rest for a day or two, while we sustain the patient by giving an injection of a gill or more of good beef tea every third hour. Then, for a time, merely the plainest food should be allowed, and only small quantities taken at a meal. Milk, to every pint of which may be added a gill of lime-water, gruel, soup, and arrowroot, will all be useful. When these articles can be taken without causing any pain or uneasiness, the diet should be increased, and fish, poultry, and mutton may be taken. Stale or unfermented

bread may be eaten; but vegetables, pastry, cheese, beer, and spirits should be forbidden. If any stimulant be needed, a little sherry wine, or weak brandy and water, will prove the least injurious, and in some instances will be even beneficial.

With regard to medicines, several are useful. Pepsin (R. 64), the digestive principle of the gastric juice, is very valuable when there is an imperfect performance of the functions of the stomach, and especially when this is indicated by disturbance following the use of animal food. The tonics (R. 65 and R. 66) often prove serviceable. In some instances R. 62 and R. 63 do much good.

If there is great sourness of stomach, alkalies (R. 76, R. 77) are indicated. If there is yellowness of the skin, or conjunctiva, or the evacuations are clay-colored, or there is hemorrhage from the stomach or bowels, the nitro-muriatic acid (R. 148) will generally prove beneficial. In cases where a laxative is required, the compound rhubarb pills (R. 149) may be used. After the patient's health is restored, great care must be taken to prevent a relapse of the disease.

PAIN IN THE STOMACH. (*Gastralgia.*)

Symptoms. Acute pain in the region of the stomach, occurring at a variable interval of from half an hour to three hours after a meal, generally relieved by pressure and by food. It is associated with other symptoms of dyspepsia, and is often terminated by pyrosis or water-brash.

Causes. Those of dyspepsia; strong and sudden mental emotions; the abuse of tea, coffee, and warm liquids.

Treatment. Remove the causes of the trouble, and give one of the following powders, two or three times a day: —

Take of Sub-nitrate of Bismuth, . . 2 drachms.

Divide into twelve powders. They may be taken in syrup or molasses.

WATER-BRASH. (*Pyrosis.*)

Symptoms. In the morning or forenoon, when the stomach is empty, or some hours after a meal, and after suffering from pain in the stomach, vomiting of a thin, watery fluid, in considerable quantity, sometimes of a sour taste, but often quite insipid. The free discharge of the fluid generally gives relief to the pain, and puts an end to the attack.

Causes. The common causes of dyspepsia.

Treatment. That of *gastralgia*, or pain in the stomach. If the liquor vomited be highly acid, R. 76 or R. 77 will prove beneficial.

VOMITING OF BLOOD. (*Hæmatemesis.*)

Symptoms. Vomiting of dark-colored grumous blood, in greater or less quantity, often mixed with food, and preceded by a sense of weight and dull pain in the region of the stomach.

Causes. *Predisposing.* — The female sex, intemperance, peculiarity of constitution. *Exciting.* — Suppression of habitual evacuations, especially of the menstrual discharge (vicarious hæmatemesis), tumors, compressing the liver or spleen, external violence, &c.

Distinguish this affection from spitting of blood (hæmoptysis) from the lungs, by the blood being vomited; by being mixed with food, and not with sputa, and by being of a dark color instead of a bright red.

Vomiting of blood seldom proves fatal, except when occurring in persons of *hemorrhagic diathesis*, who are liable to bleed profusely, and even unto death, from slight causes, as the extraction of a tooth, biting the tongue, &c.

Treatment. The treatment must consist in abstinence from food; perfect rest, in the horizontal posture; cold wa-

ter and small pieces of ice may be swallowed, and pounded ice may be applied to the pit of the stomach in urgent cases. The following powders often prove serviceable: —

Take of Tannic Acid, ... 1 drachm.
Powdered Opium, ... 12 grains.

Mix, and divide into twelve powders. One may be taken in a little syrup every third, fourth, fifth, or sixth hour, according to the urgency of the case.

The oil of turpentine often proves highly beneficial, and may be given in the following form: —

Take of Oil of Turpentine, . . . ½ ounce.
Mucilage of Gum Arabic, . . 2 ounces.
Syrup of Balsam of Tolu, . . ½ ounce.

Mix. Give a teaspoonful, in a little cold water, every hour or two. When the hemorrhage has ceased, endeavor to prevent its recurrence by removing causes, and a strict attention to the digestion and general health. In all cases of vomiting of blood, a physician should be called as soon as possible.

INFLAMMATION OF THE STOMACH. (*Gastritis.*)

Inflammation of the mucous membrane of the stomach may be acute or chronic.

Causes. Very cold water, rapidly swallowed, while the body is heated; irritating and corrosive substances; fatiguing exercise; over-distention; improper food; metastasis of gout or rheumatism, &c.

Symptoms. Vomiting, and a burning, lancinating pain in the stomach. There is a desire for cool drinks, and an aversion to warm, which aggravate the complaint. The pulse is small, tense, and quick; the pain is constant, except for a moment after taking a cold drink; the pa-

tient generally lies on his back, and moves as little as possible.

Treatment. The first and most important object in the treatment is, to secure for the inflamed organ as much rest as possible. With reference to this object, the less of anything introduced into the organ the better. To allay intense thirst, small pieces of ice may be swallowed, or iced water, taken often, in very small quantity at a time. It is desirable to administer opiates in order to quiet the stomach, and render the system more tolerant of the disease. The following powders, placed dry upon the tongue, may be tried: —

Take of Sulphate of Morphia, . . . 1 grain.
White Sugar, ... 12 grains.

Mix thoroughly, and divide into six powders. One may be taken every two, three, or four hours, or as occasion requires. If vomiting be provoked by this mode of administration, half a teaspoonful of laudanum, in a wineglass of starch-water, may be injected into the bowels, and repeated every three to six hours, if necessary. A mustard poultice, followed by hot fomentations, or a blister, four inches square, may be placed over the pit of the stomach. If the bowels are constipated, relieve them by a soap-suds injection. Cathartics are not admissible. The importunities of the patient for an emetic are to be resisted. It would do harm rather than good. Stimulants and solid nourishment will not be borne. For a day or two, or until the urgent symptoms have subsided, the patient may be sustained by injecting into the bowels a gill of strong beef tea, or essence of beef, three or four times in the twenty-four hours. If the patient be very much prostrated, an ounce or two of wine may be added to each injection.

When the improvement in the symptoms render it probable that food will be retained, milk, with the addition of a tablespoonful or two of lime-water to every gill, will be

likely, at first, to be best borne. It should be given in small quantities at short intervals. Other forms of food may be gradually added.

Chronic Inflammation of the Stomach is much more common than the preceding, and fortunately much milder.

Causes. Excess in eating and drinking; unwholesome food; an occasional increase of dyspepsia, &c.

Symptoms. Pain in the region of the stomach, increased by pressure; and *immediately* on taking food, with constant nausea or sickness, the stomach rejecting food as soon as it is swallowed, or after a short interval. The tongue is sometimes red at the tip and edges, and furred in the centre; at others morbidly red over the entire surface, but in many cases perfectly clean. The bowels are generally costive.

Treatment. In the more severe cases, half a dozen or more leeches may be applied over the region of the stomach, and followed by a blister, mustard poultice, or fomentations. In less severe cases, the leeches will not be required. The diet should consist of gruel, arrowroot, or sago, made with water or milk, to the entire exclusion of solid food, till the sickness and tenderness on pressure disappear, when the patient may be allowed gradually to resume his usual diet.

The bowels may be kept open by Rochelle powders or castor oil.

ULCER OF THE STOMACH.

This is an interesting disease, variously spoken of by authors as the *simple*, *chronic*, or *perforating* ulcer of the stomach.

The ulcer is more frequent in the female than the male, in the proportion of nearly two to one. It is specially a disease of middle and advancing life, and is more frequent in the poor than in the rich. The ulcer varies in size in

different cases, being sometimes so small as to be discerned with difficulty, and sometimes of the size of a half dollar, or dollar, or even considerably larger. If small in size, it has generally a round or oval form, and presents an appearance, in some cases, as if a portion of the tissues had been punched out. About half the instances of this disease undergo what is probably a spontaneous cure; in exceptional cases, the ulcer has been fatal in ten days, generally by perforation, sometimes by exhaustion, caused or hastened by vomiting, and very rarely by hemorrhage.

When perforation of the stomach takes place, its contents are generally poured into the abdominial cavity, and give rise to fatal inflammation.

Symptoms. The most constant symptom is pain in the back and pit of the stomach, and when in the latter region, it is frequently described as dull and sickening, and it is increased by food. There is occasionally eructation of a sour fluid, and at times nausea and vomiting. The patient generally loses flesh, but otherwise the constitutional symptoms are usually slight. After the disease has continued a longer or shorter time, perforation may occur; or, failing this, there may be a severe attack of hemorrhage, indicated by vomiting of blood. But in favorable cases, the ulcer gradually heals, the pains diminish, and the patient completely recovers.

Treatment. In the treatment of this disease, we must endeavor to support the system, and facilitate the healing of the ulcer. When the pain is very severe, a mustard poultice may be applied over the stomach, and followed by hot fomentations. In obstinate vomiting, or in hemorrhage, the application of ice is more advisable. Small pieces of the same may be occasionally swallowed. Laudanum or morphine may often be administered with very great advantage.

The patient's diet in this disease should consist of those nutritious articles of food which will be best retained by the

stomach, and give rise to the least inconvenience. Milk and farinaceous substances will be best borne. Condiments, alcoholic stimulants, solid and indigestible food of any description, should enter as little as possible, or not at all, into the diet. The quantity of food taken at a time must be small, and the intervals regulated according to circumstances. Milk and other liquids should be taken cold. Lime-water added to milk renders it less likely to occasion disturbance. Quietude of the body is to be enjoined, more especially during the process of digestion. Cathartics are injurious in this disease, and constipation, if it exist, is to be relieved by injections.

When an improvement in the symptoms renders it probable that the ulcer is healing, great care in diet is important to prevent a relapse.

CANCER OF THE STOMACH.

Symptoms. In the early stage of the disease the symptoms are very obscure. They are either those of dyspepsia or chronic gastritis. But after a longer or shorter interval, during which the patient loses flesh, and obtains little or no relief from his dyspeptic symptoms, a circumscribed tumor may be discovered in the region of the stomach. At this stage of the disease the symptoms are generally of a more marked character. The pain is described as burning, gnawing, or cutting; and there are acid or bitter eructations, with nausea and frequent vomiting of food, of mucus, of blood, or of a dark grumous matter; constipation; great emaciation, and a sallow countenance.

Causes. *Predisposing.* — The cancerous diathesis. *Exciting.* — Long-continued dyspepsia. All causes of inflammation or congestion of the stomach. Depressing passions.

Treatment. This can only be palliative; for the disease makes continual progress, exhausts the powers of

life, and, in the majority of cases, causes death within one year.

Laudanum or morphine, administered either by the mouth or bowels, will be necessary; it should be given in free and repeated doses to subdue the pain. When the vomiting is very severe, nourishment, in the form of beef tea, must be given by means of injections; where it can be borne, however, a milk diet will be beneficial.

INFLAMMATION OF THE INTESTINES.

(*Enteritis.*)

Inflammation of the intestines, or bowels, varies much in severity, being sometimes so slight as hardly to attract attention, but often so severe as to threaten, or even rapidly destroy life.

Symptoms. Chills, hot skin, thirst, hard and rapid pulse. There is acute pain in the abdomen, *increased by pressure* over the inflamed part, and gradually, in severe cases, extending to the whole abdomen, accompanied by swelling and tension. The patient lies on his back, with the knees drawn up, and can scarcely suffer the pressure of the bed-clothes. In *colic*, it must be remembered, *pressure* upon the abdomen gives *relief* instead of pain. There is obstinate costiveness; also nausea and frequent vomiting, the matters thrown off being generally bilious, and in some instances highly offensive. The urine is high-colored, and there is great prostration of strength. In fatal cases, the swelling and pain increase; the extremities grow cold; the skin is bedewed with a soft sweat; and death takes place from exhaustion, preceded by a cessation of pain. This disease sometimes occurs in young children from six to eight months old. The child is hot and restless in the early stages, and suffers from thirst; the tongue is dry, or covered with a brownish crust; there is frequent screaming; dis-

turbed sleep; vomiting; pain in the bowels, increased on pressure, and in some cases diarrhœa, the feces being often discharged with considerable force. Thus far the disease does not differ much from a sharp attack of diarrhœa. Severe constitutional symptoms, however, soon set in, such as high fever, thirst, vomiting, dryness of the tongue, &c., followed by a rapid and unexpected exhaustion, or sometimes by a morbid disposition to sleep, with a peculiar pale, waxen appearance of the body. These symptoms may come on before the disease has lasted any considerable time, and whilst it can scarcely be distinguished from the ordinary bowel complaints of children. It should be remarked that an erythematous redness is generally observed around the anus.

Treatment. Twenty-five or thirty drops of laudanum, or a morphine pill (R. 45), may be given to an adult once in two, three, or four hours, according to the urgency of the symptoms. Hot fomentations perseveringly applied to the abdomen will give great relief. All purgatives are to be rigidly avoided, but the bowels may be relieved by injections of warm water thrown up in large quantity, gradually and slowly. The diet should be very simple, and ought to consist chiefly of gruel, milk, or beef tea. Cold water may be freely allowed. When there is a disposition to prostration, stimulants, as wine, brandy, or whiskey, may be resorted to. After the inflammation has ceased, mild laxatives, as castor oil, or Rochelle powders, may be required. In children, the same kind of treatment must be pursued, though the preparations of opium, — laudanum, morphine, &c., — must be given to them with caution. The warm bath, and hot fomentations, or linseed-meal poultices to the abdomen, will give great relief. If the child is at the breast, no other food should be allowed; otherwise, the diet must be very mild, consisting chiefly of milk with a little broth.

COLIC.

Symptoms. Pain in the bowels, especially about the umbilicus, occurring in paroxysms, and *relieved by pressure.* It is accompanied by constipation, and often by vomiting. There is no fever, no quickness of pulse, and no depressing anxiety, as in inflammation of the intestines.

Causes. Acrid or indigestible food; redundance of acrid bile; collections of hardened feces; wind; certain metallic poisons, as lead; worms, &c.

Treatment. We must first endeavor to relieve the pain, and get the bowels to act. If the trouble is caused by wind, give twenty-five drops of laudanum, and a teaspoonful of essence of peppermint, in a little warm water, at once. After the patient becomes easy, give an ounce or two of castor-oil, or a good dose of Epsom salts, to clear the bowels. In cases arising from indigestible food, or a redundance of acrid bile, — which will be indicated by the patient's vomiting a yellowish, bitter fluid, — first give half a teaspoonful of bicarbonate of soda in a gill of cool water, and immediately afterwards a purgative, consisting of three compound cathartic pills, or five grains of calomel and fifteen of jalap. If the pain is very severe, or the inclination to vomit such that nothing can be retained on the stomach, one or two opium (R. 44) or morphine (R. 45) pills may be given to produce relief, before giving the cathartic. The application of a mustard poultice and hot fomentations to the bowels must not be neglected. The cathartic may be aided by a liberal warm water or soap-suds injection. This is often termed *Bilious Colic.*

In Lead Colic, or Colica Pictonum, so called from its former frequency among the Pictones, or inhabitants of Picton, there are superadded to the former symptoms a twisting pain around the navel, with retraction of the abdominal integuments towards the spine, and pain in the back. In nearly all cases of lead colic a blue line may be observed around the edges of the gums.

Cause. This disease is caused by the introduction of lead into the system in sufficient quantity to give rise to its morbid effects. It may be introduced through the lungs, stomach, the mucous membrane in other parts, and the skin. Certain occupations involve the inhalation of lead. Persons employed in the manufacture of lead paints are most exposed, and of those who suffer from lead poisoning, the largest proportion are of this occupation. Next to this class, painters are most exposed. More or less exposure, by inhalation, belongs to a great number of occupations, such as paper-staining, grinding of colors, glazing cards, manufacturing earthen pottery, plumbing, shot-making, &c. Lead poisoning has repeatedly occurred from sleeping in newly-painted rooms. Lead may be introduced through the stomach in various articles of food and drink. Spurious wine and cider are sometimes adulterated with lead to give them sweetness.

In the treatment of severe cases of lead colic, laudanum or morphine must be given to relieve pain, and active cathartics to open the bowels. A mustard poultice, followed by hot fomentations to the abdomen, should not be neglected. As a cathartic, five grains of calomel and fifteen of jalap may be given; or, if preferred, an ounce of Epsom salts dissolved in half a pint of water. An hour or two after the cathartic has been administered, an injection of warm water or soap-suds may be given. The bowels must be thoroughly acted upon or purged. After the urgent symptoms have subsided, the following medicine may be taken for a considerable time to remove the lead from the system: —

Take of Iodide of Potassium, . .	8 scruples.
Water, ...	3 ounces.
Syrup of Orange Peel, . .	1 ounce.

Mix. One teaspoonful may be taken in a wineglass of water after each regular meal.

DIARRHŒA.

Symptoms. In addition to the looseness of the bowels, or purging, there is generally some degree of nausea, a furred tongue, foulness of breath, flatulence, griping pains, acrid eructations, constant desire to evacuate the bowels; moreover, the stools are unhealthy.

Causes. The use of improper food or decaying fruit, great mental emotion, exposure to cold or too great heat. From the latter cause, relaxation of the bowels is common during the summer months.

Treatment. This will, of course, depend upon the cause. When the purging arises from the presence of some offending matter in the intestinal canal, the expulsion of such matter must be aided by giving a dose of tincture of rhubarb, castor-oil, or Epsom salts, combining ten to twenty-five drops of laudanum with the dose, if there be much pain. If no such cause exist, give a powder composed of three grains of calomel and one of opium, and three hours afterwards a dose of castor-oil. The patient should keep quiet, and lay down when convenient. Gum arabic water, cool water, and liquid nourishment only should be allowed during, and for a few days after the attack. If the diarrhœa does not cease soon after the operation of the cathartic, opium and astringents (R. 71 or 74) may be given.

DYSENTERY.

This disease consists chiefly in inflammation and ulceration of the large intestine, or colon and rectum.

Symptoms. At the commencement there is uneasiness, and pain in the abdomen, of a griping character, with a frequent inclination to go to stool, which is followed by relief. As the disease becomes developed, the desire to go to stool

is more frequent, and the ease which succeeds more transient; the evacuations are thin, mucous, and bloody, and frequently mixed with small, hard, separate lumps of feces. The scanty evacuations soon produce distress rather than relief; the patient is constantly tormented with a desire to go to stool, and griping; the stools become fetid, dark-colored, and mixed with shreds of lymph, and the bladder sympathizes with the bowels, causing frequent desire to urinate. In all cases there is more or less fever and constitutional disturbance; the tongue is furred; pulse quick and small; skin harsh, hot, and dry; thirst urgent; no appetite; hurried breathing, and great prostration. This is a serious and often fatal disease.

Causes. Cold and wet, contagion, malaria, polluted water, bad food, drastic purgatives, &c.

Treatment. In commencing the treatment of this disease, it is proper to well clear out the bowels, and for this purpose a large dose of castor-oil may be given, and with it twenty-five or thirty drops of laudanum, to relieve pain. Instead of the oil, I sometimes give the following mixture: —

Take of	Epsom Salts, ...	1 ounce.
	Laudanum, ...	½ drachm.
	Peppermint Water, . . .	3 ounces.
	Pure Water, ...	3 ounces.

Mix. A tablespoonful may be given to an adult, in a little water, every half hour, until free watery discharges from the bowels take place. This seems in most cases to give the patient great relief. After the bowels have been well cleared out, half a teaspoonful of laudanum, mixed with two or three tablespoonfuls of thin warm starch-water, may be injected into the bowels, and this injection may be repeated once in three to six hours, or often enough to prevent the patient suffering from pain. Warm fomentations and hot poultices to the abdomen always give relief. If

a syringe is not at hand with which to administer the laudanum and starch injection, an opium (R. 44) or morphine (R. 45) pill, or twenty-five drops of laudanum, may be taken every three to six hours as a substitute.

After two or three days, if the disease continue, the purgative may be repeated, if not contra-indicated by the feebleness of the patient; and afterwards the use of opium resumed. Attention must invariably be paid to the diet; emollient drink, — gum-water or barley-water, — milk, arrowroot, and essence of beef only being allowed during, as well as for a few days after the attack.

In severe cases the patient should be confined to the bed, not even being allowed to rise to use the vessel, as the more quiet the bowels are kept the better. When there is considerable hemorrhage from the bowels, astringents (R. 71 or 74) may be used. When there is much prostration, a little brandy and water may be given every two or three hours. Dysentery being a grave disease, requiring careful management, a physician, when obtainable, should always be called to take charge of the case.

CHOLERA MORBUS

By cholera morbus, is meant that peculiar affection of the alimentary canal, characterized by vomiting and purging, and attended frequently with more or less cramps or spasms of the abdominal muscles, and also of the extremities, and, in severe cases, with considerable prostration.

Symptoms. The disease commences with a feeling of oppression in the stomach and bowels, with perhaps chilliness, and a feeling of great distention, with violent pain in the abdomen. Soon there is nausea and griping pains, with obstinate vomiting, and copious liquid discharges from the bowels. The pulse becomes weak and frequent, the skin cool and moist, the strength is prostrated, and, along with

more or less severe cramps in the bowels and extremities, there is sometimes wandering of the mind, or slight delirium.

If the discharges and cramps continue, they may lead on to a fatal termination.

CAUSES. Excessive heat, or sudden transitions from heat to cold; food of difficult digestion; unripe or decaying fruit, or an excessive quantity of ripe fruit; putrid meat; decayed vegetables, &c. This disease occurs during the summer months.

TREATMENT. The patient should be confined to bed, in a cool, airy room. A teaspoonful of bicarbonate of soda or saleratus may be added to a tumblerful of cool water, which may be drank at once. Then give an opium (R. 44) or morphine (R. 45) pill, or thirty drops of laudanum, and repeat it in half or three fourths of an hour, unless the pain, vomiting, and purging cease. If the opiate first given is vomited immediately, or within fifteen minutes, give the second dose at once. Our aim should be to give sufficient to relieve the urgent symptoms within an hour or two; after which the dose may be repeated every two, three, or four hours, or as occasion requires, lengthening the intervals between the doses as the patient improves. Mustard poultices to the abdomen and extremities prove serviceable.

When the cramps in the extremities are severe, rubbing the limbs briskly will ease the patient. When there is great prostration, brandy and water may be taken, as occasion requires. The diet should at first be light, as gruel and milk; and when the disease has subsided, the usual diet must be *gradually* resumed.

MALIGNANT OR ASIATIC CHOLERA.

This is probably the most fatal disease known in the annals of medicine. We are wholly ignorant of its origin.

All that our experience has taught us is this: that the disease attacks the poor in a much larger proportion than the rich; and that as we remove destitution, filth, foul air, and the causes of disease generally, so we destroy the agencies through which this formidable malady operates.

Symptoms. The disease does not always begin in the same way. In a few cases it makes its attack suddenly; the patient vomits once or twice, or passes one or two loose motions; complains of giddiness, blindness, or deafness; falls down, and expires in a few minutes. Such cases are rarely seen out of India. In the majority of cases, the following is the order of the symptoms: After a preliminary attack of diarrhœa, of greater or less severity, and continuing for some hours or days, the patient is seized with symptoms of collapse or prostration, accompanied, in most cases, by vomiting. The acts of vomiting and purging are generally unattended by pain or tenderness in the abdomen; and the matters rejected from the stomach and bowels are free from bile, have a faint fishy odor, or are altogether inodorous, and resemble yeast; or they consist of a thin, colorless serum, or they bear a close resemblance to rice-water, and are familiarly known as "rice-water discharges." Sometimes they have a pink color, or the deeper hue of port wine. Severe and painful cramps commence in the fingers and toes, and rapidly extend to the calves of the legs, to the thighs, and muscles of the abdomen; the eyes are sunken, and surrounded by a dark circle; the features contracted and sharpened; the expression of countenance indifferent and apathetic; the face, extremities, and sometimes the whole surface of the body assumes a leaden, bluish, or purple hue; the limbs are shrunken and contracted; the nails blue; the hands clammy and sodden; the surface covered with a profuse cold sweat; the pulse thready or imperceptible at the wrist, arm, axilla, temple, or neck; and if a vein or artery is opened, the blood trickles away, thick and dark. In spite of the extreme coldness of the surface, the patient

complains of heat, throws off the bedclothes, and suffers from great restlessness and incessant jactitation; complains of a burning heat in the region of the stomach, and is tormented with thirst; the respirations are below the number in health, the inspiration difficult, and the expiration short and convulsive; the voice is plaintive, the patient speaking in a hoarse, sepulchral whisper; the breath feels cold as it issues from the mouth; the tongue is white, or of a leaden color, cold and flabby. The secretion of urine is entirely suppressed, or a small quantity of limpid urine is passed, and there is an earthy or cadaverous odor exhaled from the body. In this state of collapse the disease often proves fatal, the patient dying without a struggle, and retaining his faculties to the last. In other cases the patient gradually rallies, the pulse rises, the blueness of the surface disappears, the body resumes its warmth, the cramps and vomiting cease, and a rapid and complete recovery takes place.

Duration. In fatal cases, from a few minutes to twenty-four hours, or more. More than half the fatal cases die within the first twenty-four hours. The average duration is about two days.

Causes. *Predisposing.* — Debility; impaired health; intemperance; impure air; impure water; low and damp situations; the summer and autumn seasons. *Exciting.* — A peculiar poison diffused through the atmosphere. There is also reason to believe that the disease spreads by contagion, though the contagion is not so intense as to cause anxiety among the attendants on the sick; and by means of water polluted by cholera evacuations.

Treatment. The preliminary diarrhœa requires the treatment of common diarrhœa. In the ordinary run of cases, R. 71 or R. 74 will prove serviceable, the diet being restricted to gruel or arrowroot, made with milk. In more severe cases, an opium (R. 44) or morphine (R. 45) pill may be taken every one, two, or three hours, according to the severity of the case, until five or six have been taken,

unless relief be sooner obtained. In epidemics of Asiatic cholera, patients suffering from diarrhœa should be promptly treated and carefully watched. Perfect quietude is important, and the patient should not be permitted to get up to go to stool, but should be provided with a bed-pan, and he should be urged to resist, as much as possible, the desire to evacuate the bowels. He should be restricted to a small quantity of water, or brandy and water, given at short intervals, or to small pieces of ice.

When the disease is arrested by these means before proceeding to the stage of collapse, the recovery is usually speedy. Regulated diet, rest, with perhaps a tonic (R. 146), suffice for the cure. The bowels should be allowed to remain constipated for several days, and then, if movements do not spontaneously occur, simple warm water injections will probably be sufficient; if not, a little rhubarb or castor-oil may be given.

In some cases, owing to persistent vomiting and frequent purging, remedies are not retained sufficiently long to exert their effects, and then this course of treatment may fail; and it is not available when, from any cause, the stage of collapse or prostration occurs so quickly that there is not time enough to obtain remedial effects. These difficulties are equally in the way of success from any remedies.

In a large proportion of cases, after collapse has taken place, little can be done with much hope of success. Even if the vomiting and purging cease, recovery may not follow. The blood may have been damaged irremediably. Recovery, however, takes place in a certain proportion of cases, and under a great variety of treatment. It may take place when no treatment is pursued. The object of treatment in this stage, aside from the arrest of vomiting and purging, is to excite and aid the efforts of nature in restoring the circulation, together with the functions dependent thereon. The measures to be employed for this object are external heat, stimulating applications to the surface, brandy or

whiskey, and nourishment. The application of heat may be made by means of warm blankets, or bottles of hot water placed about the body. A large mustard poultice may be applied over the abdomen, and smaller ones to the extremities. Brandy or whiskey and water should be given as freely as the stomach will bear, always recollecting the risk and the evils of inducing vomiting. It will be most apt to be retained if given in small quantities at a time, and often repeated. If vomiting be provoked by either drinks, remedies, or food, more or less injury is done. Stimulants, such as capsicum, ginger, &c., are appropriate, if they are grateful to the stomach, and retained. Concentrated nourishment — essence of beef, chicken broth, and milk — may be given in small quantities at a time, if retained by the stomach. It is doubtless desirable to introduce liquid into the system as far as possible. The only objection to the free drinking of water is the risk of provoking vomiting. Small lumps of ice should be freely allowed. If the patient emerge from the collapsed state, support the system by the moderate use of brandy or whiskey, and by nourishment. The patient will require close attention for some days, and any unfavorable symptoms which may arise must receive prompt attention.

OBSTRUCTION OF THE BOWELS.

This much to be dreaded disorder may arise from several conditions, the most common of which is, perhaps, *strangulated hernia*. It may also be caused by the reception of a portion of intestine into another portion (intussusception); by the twisting of a portion of intestine around another portion of intestine, &c.

Symptoms. The chief symptoms are constant vomiting, which is at first simple, consisting of the contents of the stomach and mucus, but which in a few hours or days

becomes fecal; pain varying in degree, often very severe; great mental depression, and constipation. In almost all instances the prostration sets in early. The lower the obstruction is situated the less urgent will be the vomiting.

Treatment. In the management of obstinate constipation, we at first resort to the use of purgatives and injections. An ounce or two of castor-oil, into which should be put thirty to forty drops of laudanum, may be taken at once; and soon after a quart or two of warm soap-suds may be injected into the bowels. If we are convinced, however, that there is some mechanical obstruction, another plan must be pursued; for under such circumstances, purgatives will generally do harm rather than good. Laudanum may be given in doses of thirty to forty drops, and the dose repeated in an hour or two, if necessary to relieve pain or arrest vomiting. Hot fomentations may be applied to the abdomen. At the same time large quantities of soap-suds — one or two quarts — may be thrown into the bowels with a proper syringe. The patient must be advised to abstain as much as possible from food and liquids, being assured that the more he takes the more his sufferings will be increased. If the first injection does not give relief, another may be given in an hour or two. Physicians sometimes inject air into the intestines in these cases with good effect. When these means fail, the obstruction may sometimes be overcome by a surgical operation.

WORMS.

Several kinds of worms are found inhabiting the intestinal canal — the *long thread-worm*, *large round-worm*, *small thread-worm*, *tape-worm*, &c.

The large round-worm is found in the small intestines, especially of ill-fed children. It somewhat resembles in size the common earth-worm, varies in length from six to

nine inches, and is of a light yellow or cream color. Although the habitat of this worm is the small intestines, yet it may pass into the stomach, or downwards into the large intestine, and consequently be vomited in the one case, or passed with the stools in the other. Sometimes these worms are very numerous. An instance is recorded in which a girl voided upwards of two hundred in one week. The symptoms which this worm gives rise to are thirst, disturbed sleep, with grinding of the teeth, pallid countenance, fetid breath, swelled abdomen, emaciated extremities, depraved appetite, slimy stools, itching of the nose and anus, and frequent desire to go to stool.

The small thread-worm, or "pin-worm," is found in the rectum or lower bowel, and is the smallest of the intestinal worms, averaging only about a quarter of an inch in length. It gives rise to intolerable itching and irritation about the anus, desire to go to stool, depraved appetite, picking of the nose, fetid breath, and disturbed sleep.

The common tape-worm exists in the small intestines, and varies in length from five to ten or more feet, and in breadth from one line, at its narrowest part, to four or five at its central or broadest part. The head of this parasite is small and flattened, having in its centre a projecting papilla, armed with a double circle of hooks, around which are four suckers or mouths, by which nourishment is imbibed. The symptoms of its presence are not very striking, its existence being generally unsuspected until single joints are passed in the stools; in many cases, however, there is a continual craving for food, debility, pain in the stomach, emaciation, and itching about the nose and anus. The most conclusive sign of intestinal worms, of whatever kind, is the passage of some of them, or joints of them, in the feces; and indeed without this the other symptoms are of but little value.

Treatment. For the common round-worm, give R. 34 or R. 35. For tape-worm, R. 36. For the small thread-worm

or "pin-worm," injections of salt-water (R. 37), or a solution of aloes (R. 38), generally prove effectual.

After worms have been removed, some tonic (R. 63 or R. 146) may prove beneficial in preventing their re-appearance. Patients should also be directed to take plenty of salt with their food, and to have the latter well cooked.

CHAPTER VIII.

DISEASES OF THE LIVER AND SPLEEN.

INFLAMMATION OF THE LIVER.

Inflammation of the liver may be acute or chronic; both forms are rare in this climate, but common in tropical countries.

Causes. All the common causes of inflammation; biliary concretions; the violent operation of emetics; external injury; intense heat; hot climates; intemperance, &c.

Symptoms. The symptoms of acute inflammation of the liver are, high fever, hot skin, thirst, and scanty urine, the fever sometimes assuming a typhoid character; pain, more or less severe, in the region of the liver, increased on pressure, deep inspiration, or cough; inability to lie on the left side; a yellow tinge of the eye, and often complete jaundice; hurried breathing; sympathetic cough, and vomiting, and hiccup. In affections of the liver, the right collar-bone and shoulder become the seats of gnawing and aching sympathetic pains.

Terminations. The most favorable termination of acute inflammation of the liver is resolution. When this happens, the pain and fever gradually abate, and the patient is soon well. The inflammation may, however, go on to diffused suppuration, or to the formation of circumscribed abscesses, or even to gangrene.

Abscesses of the liver sometimes attain a great size, and in extreme cases may contain several pints of pus or

matter. They may burst internally, and give rise to fatal inflammation. Most frequently, however, when the matter gets near the surface of the gland, adhesive inflammation is set up in the structures immediately above it, and lymph is poured out, which glues the organ to adjacent parts — to the abdominal parietes, the diaphragm, stomach, or some part of the intestines; the pus is then discharged externally, or into the lung, or pleura, or stomach, &c.

Treatment. If the bowels are constipated, give a dose of Epsom salts to move them. Mustard poultices, followed by hot fomentations over the region of the liver, prove beneficial. If the pain is very severe, six to twelve leeches, applied over the seat of pain, may prove serviceable. Laudanum, or some preparation of opium, is indicated to relieve pain. Dover's powder, in ten or twelve grain doses, will prove as beneficial as any form. The diet should consist of gruel, milk, and light broths. In all cases *active treatment* is not advisable; but it is especially so when we infer that the formation of matter or suppuration has taken place. Nourishing food, as milk, beef tea, or essence of beef, will then be required. Tonics, such as quinine (R. 146), or quinine and iron (R. 63), or the nitro-muriatic acid (R. 148), will also be necessary. The bowels may be regulated by Rochelle powders, or the compound rhubarb pills (R. 149). Warm water injections occasionally prove serviceable.

When an abscess has formed, and we are sure that its surface is adherent to the abdominal wall, we may — after making an exploratory puncture with a grooved needle — open it with a lancet, or may puncture it with a trocar; but great judgment and caution must be exercised. None but a surgeon should attempt to open it.

Chronic inflammation of the liver may be the sequel of acute, or it may arise from diseases of the liver, such as cancer, tubercles, &c.

Causes. Intemperance, and the repeated use of alcoholic

liquors, are frequent causes of this disease; this is more especially the case in hot climates.

Symptoms. Fulness and weight in the region of the liver; shooting pains felt at times in the same region; uneasiness or pain on pressure; discomfort from lying on the left side; perhaps some degree of jaundice; and sometimes a certain amount of fever, combining itself with more or fewer of these symptoms.

Treatment. A three-grain blue pill may be given on retiring, two or three times a week, for two or three weeks; and on the following morning a Rochelle powder, or a small dose of Epsom salts, may be taken. The iodine paint (R. 86) may be applied over the region of the liver, once a day, for a week or two, with benefit.

After these measures have been used for two or three weeks, they may be omitted, and the following mixture taken for a time: —

Take of	Diluted Nitro-muriatic Acid, .	½ ounce.
	Pure Water, ...	1 ounce.
	Fluid Extract of Dandelion, .	1½ ounces.
	Simple Syrup, ...	1 ounce.

Mix. Shake before using. An adult may take a teaspoonful in a wineglass of water three times a day, before meals.

Persons troubled with any disease of the liver should consult some regular and reliable physician, as soon as convenient.

CANCER OF THE LIVER.

Nearly every variety of cancer has been met with in the liver; encephaloid, or soft cancer, is more common than the scirrhus, or hard kind.

Symptoms. When a liver contains numerous masses of cancer, it is generally much enlarged. These masses do

not give rise to inflammation of the substance of the liver; but when superficial, they often cause some inflammation of the adhesive kind, so that after death the tumors are found adherent to the diaphragm or to the abdominal walls. The remaining symptoms are very obscure; constant diffused pain and tenderness, with disorder of the digestive organs, being generally the most prominent.

Treatment. Our remedies can do little more than palliate urgent symptoms. Relief to the pain must be given by opium in some form, while the digestive organs should be strengthened by tonics, and by a light nourishing diet.

JAUNDICE. (*Icterus.*)

This is rather a sign of some affection of the liver than a separate disease.

Causes. It may be produced in two ways: 1st. By some impediment to the flow of bile into the intestine, and the consequent absorption of the retained bile; and, 2d. By defective secretion on the part of the liver, so that the principles of the bile are not separated from the blood. The most common impediment to the flow of bile into the intestine is the impaction of a *gallstone* in the duct which conveys it. Gallstones consist of inspissated bile. Large numbers are sometimes found in the gall bladder. Sedentary occupations and free living tend to their formation. When the obstructing stone has passed into the intestine, it is voided with the feces, and the cause of the jaundice being removed, the skin gradually assumes its natural color. The other causes of jaundice from obstructed gall ducts are, cancer of the liver or pancreas, closure of the ducts from adhesive inflammation of the liver; by mental shocks, or grief, or dissipation; by certain poisons in the blood, and by certain disorders of the stomach.

Symptoms. The skin and white portion of the eyes are

of a yellow color; the urine has the tint of saffron; and the feces are whitish, or of a light clay appearance. If the disease continue long, there may be stupor, delirium, and other indications of cerebral derangement; the patient also becomes weak and thin from mal-nutrition; and frequently there appears to be a tendency to hemorrhage, as bleeding from the nose, gums, &c. When there is obstruction from a gallstone, the most acute suffering is induced; the pains being paroxysmal, and often attended with vomiting and hiccup. Should the concretion not pass through the duct, fatal exhaustion may set in.

TREATMENT. The selection of remedies must, of course, be guided by the cause. When the jaundice is due to some obstruction, hot poultices, or mustard poultices, warm baths, a purgative of Epsom salts, and low diet will be called for; while, during the passage of a gallstone, full doses of laudanum — thirty-five to fifty drops — will be necessary, either alone or combined with draughts of hot water, to every gill of which a teaspoonful of bicarbonate of soda or saleratus may be added. On the other hand, the disease being due to suppressed secretion, we may cautiously make use of the treatment recommended for chronic inflammation of the liver. The patient should observe a light but nourishing diet, take frequent baths, and avoid over-work and *excessive* exercise.

OTHER ORGANIC DISEASES OF THE LIVER.

The liver is subject to several organic diseases besides those already described — to *enlargement*, *diminution of size*, *hardening*, *softening*; to *fatty degeneration*, *cirrhosis*, *tubercular deposit*, and to all forms of malignant degeneration.

FATTY DEGENERATION OF THE LIVER is of very common occurrence in pulmonary consumption, and is commonly

met with in conjunction with fatty degeneration of the kidney and other internal organs, in drunkards. It is generally, but not always, accompanied by a great increase in size, and when once developed, does not admit of cure.

Cirrhosis, or *hob-nail liver*, sometimes called *gin* or *whiskey liver*, is not a very uncommon disease; and in the vast majority of cases is supposed to be due to spirit-drinking. It is usually marked by the peculiar granular state of the surface, the diminished bulk of the organ, and the co-existence of abdominal dropsy.

Malignant degenerations are very apt to occur in the liver. They assume the several forms of hard and soft cancer, &c., and, like malignant degenerations of other important viscera, are necessarily fatal. They generally occasion a great increase in the size of the organ, and are accompanied by obstinate jaundice, and in many cases chronic dropsy.

The *treatment* of all these organic diseases of the liver is palliative, and varies with the symptoms and the existing state of the system.

DISEASES OF THE SPLEEN.

The spleen, which is situated in the left side, at the end of the stomach, may be the seat of inflammation, acute or chronic, as well as of simple enlargement, the result of congestion. But as the symptoms of inflammation of the spleen are admitted to be very obscure, it will suffice to treat the diseases of this organ under the single head of

ENLARGEMENT OF THE SPLEEN.

Causes. Previous attacks of *intermittent* or *fever and ague;* morbid degeneration, especially the deposit of tubercles; morbid softening, &c.

Symptoms. These are due for the most part to interference with the functions of parts submitted to pressure, in consequence of the enlargement. They are, dull pain in the left side; hurried breathing; dry cough; inability to lie on the right side; depression of spirits; dyspeptic symptoms; and, in extreme cases, dropsical effusions. This disease may be distinguished by the tumor in the left side, which, in some cases, becomes quite large; by the tumor being solid and smooth, generally of an oblong shape, lying beneath the integuments, and movable. The previous occurrence of *ague*, or *intermittent fever*, always affords a probability in favor of the tumor being situated in the spleen. The term "*ague-cake*" is sometimes applied to enlarged spleen.

Treatment. The use of iodine paint (R. 86) externally, and the iodide of potassium (R. 67) internally. Tonics (R. 63 or R. 146) are also sometimes required. Leeches may be applied to the seat of the disease if there is much abdominal tenderness. Gentle laxatives may be necessary to relieve constipation. The diet should be moderate, but nourishing.

CHAPTER IX.

DISEASES OF THE PERITONEUM, OVARIAN DROPSY, &c.

ACUTE PERITONITIS.

The peritoneum, or membrane which lines the inside of the abdomen, may suffer from acute or chronic inflammation.

Symptoms. Acute peritonitis is characterized by pain, at first confined to parts, but afterwards extending over the whole abdomen, increased on pressure, and attended with high fever. It is sometimes preceded by chilliness and rigors, and a feeling of weakness; in other cases it comes on abruptly, with acute distress in some part of the abdomen, generally at the lower part. The pain is usually very severe, soon spreads over the whole abdomen, and is aggravated by any movement which calls the abdominal muscles into action, or by pressure, even the weight of the bed-clothes being insupportable; the patient consequently lies quiet on his back, with his knees bent and legs drawn up. The abdomen is tense, hot, and frequently tympanitic; the bowels are constipated; there is often nausea and vomiting; the skin is very hot and dry; the pulse rapid and weak; the breathing hurried; the tongue furred; and the countenance is expressive of suffering and great anxiety. After a time the belly ceases to be tympanitic, but remains somewhat enlarged from the effusion of serum. When a fatal termination is approaching, the abdomen often becomes

much distended, the pulse very quick and weak, the countenance ghastly, and death occurs from exhaustion.

CAUSES. The principal causes are cold and damp, perforation of the stomach or intestines, the bursting of an abscess of the liver, &c.; it may also arise from inflammation of the intestines, from disease of the ovaries, and from the contamination of the blood by morbid poisons, especially, perhaps, that of erysipelas.

PUERPERAL FEVER, that fearful malady of women recovering from child-bearing, is very generally accompanied by peritonitis. It usually comes on about the third day after labor, but sometimes later. The inflammation commences in the uterine portion of the peritoneum, and spreads rapidly over the whole abdomen; in its symptoms it does not differ from common acute peritonitis. It seems to result from contamination or poisoning of the blood, either by putrefaction of part of the "after-birth" left in the uterus, or by the absorption of some of the products of inflammation, or by contagion.

TREATMENT. Opium is invaluable in this disease. Twenty-five drops of laudanum, or an opium (R. 44) or morphine (R. 45) pill should be given, every three or four hours, until the pain is thoroughly relieved; after which the dose may be repeated sufficiently often to keep the patient from suffering. Oil of turpentine, or spirits of camphor, may be gently rubbed over the abdomen two or three times a day; and after each application, hot fomentations should be properly and sedulously applied. They give great relief. In all cases purgatives do harm. The diet must consist at first of gruel; and cold water or barley water may be allowed to allay thirst. Should the patient become very low, brandy, beef tea, or essence of beef may be given. In some cases, quinine (R. 146) may be added to the spirit with benefit. Perfect repose of body is very essential.

CHRONIC PERITONITIS.

This is sometimes the sequel of the acute, but oftener an independent affection.

Symptoms. These are somewhat obscure, the abdominal pain being slight, and the constitutional sufferings variable. After a time, effusion of fluid takes place, the abdomen enlarges, and fluctuation is felt.

It is the opinion of some that this disease, when not following acute inflammation, is always complicated with scrofulous tubercles.

Treatment. These cases are not very promising; but the patient should partake of a mild but nutritious diet, and the iodine paint (R. 86) or stimulating liniments (R. 110 or 111) may be applied to the abdomen. The use of iodine (R. 67 or 68) and cod-liver oil (R. 70), internally, will often prove beneficial.

ABDOMINAL DROPSY. (*Ascites.*)

Dropsy of the abdomen may arise from chronic peritonitis; from cirrhosis, cancer, obliteration of the portal vein, and scrofulous disease of the liver, causing obstruction to the free passage of the blood through the vena portæ; from disease and enlargement of the spleen, and from some other disorders.

The abdomen often becomes very much distended by the effused fluid, giving rise to much distress and difficulty in breathing. In such cases the operation of "tapping" has frequently to be resorted to. In less urgent cases, purgatives, and some diuretic, as R. 14, may be taken to reduce the quantity of fluid. As a purgative, ten to fifteen grains of jalap, combined with a drachm or two of pure cream of tartar, will prove beneficial. Tonics and alteratives may also be required. Always consult some regular and reliable physician in these cases. .

OVARIAN DROPSY. OVARIAN TUMORS.

This is quite a common disease, and is sometimes mistaken for abdominal dropsy. The disease may exist for years without proving fatal; sometimes, however, it runs a rapid course.

These tumors sometimes contain a thin, watery fluid, which may be drawn off by the process of "tapping." In some cases the tumor may, by an operation, be removed from the abdomen, and the patient recover. But the operation is a very serious one, and should not be resorted to, so long as the tumor is not increasing in size, is not affecting the patient's health, and is unproductive of any unpleasant symptoms beyond those resulting from its weight. When such tumors are remaining stationary as regards size, and the patient's general health is good, no treatment will, as a rule, be beneficial. But if it is poor, alteratives and tonics may prove serviceable. Nourishing food, and exercise in the open air, will also be required. Always take the advice of some reliable physician in these cases.

ABDOMINAL CONSUMPTION. (*Tabes Mesenterica.*)

Abdominal consumption — sometimes termed "consumption of the bowels" — is a tubercular or scrofulous degeneration of the mesenteric glands. It is confined to no period of life, but is most common in childhood. By far the largest proportion of cases occur between the ages of one and ten years. In the great majority of cases, the disease is associated with tubercular or scrofulous disease in other parts of the system.

Symptoms. Pain in the bowels, more or less constant, sometimes severe. The bowels are variable, though generally relaxed; the motions are often unhealthy, and ex-

tremely fetid. The abdomen is swollen and tense, while the other parts of the body waste away, until an extreme degree of emaciation exists; there is great palor and general debility, which increases rapidly. Symptoms of pulmonary consumption may supervene, or the patient may die, worn out by the abdominal disease, unless remission takes place. Even in favorable cases recovery is generally slow.

Treatment. The diet should be mild, nourishing, and easy of digestion; and may consist of milk, beef tea, or essence of beef, and mutton or chicken broth. Cod-liver oil (R. 70), with tonics (R. 63 or 68), will prove beneficial. The iodide of potassium (R. 67) sometimes proves serviceable. Change of air, especially to the sea-side, often does great good.

If the bowels are loose, astringents may be required; if costive, gentle laxatives.

CHAPTER X.

DISEASES OF THE KIDNEYS AND BLADDER.

INFLAMMATION OF THE KIDNEYS.

Inflammation of the kidneys may arise without any appreciable cause, or from cold, from the formation of gravel, from various injuries, or from the administration of Spanish flies (cantharides), or oil of turpentine. It gives rise to neuralgic pains in the loins, especially in the region of the kidneys, the pain sometimes extending along the ureters to the neck of the bladder, or to the groin, scrotum, or testicle, and being increased by pressure, or by exercise; there is often numbness of the thighs; and, in men, retraction of the testicle, with frequent micturition. When this pain arises from other causes besides inflammation, as from a "fit of the gravel," — the passage of a small stone from the kidney along the ureter to the bladder, — it is termed *nephralgia*. In addition to the above symptoms, there is much constitutional disturbance, fever, nausea, and vomiting; great thirst; pulse hard, frequent, and full; constipation; tympanitis; and though the desire to pass urine is frequent and urgent, yet the secretion is scanty, high-colored, and often contains blood. The inflammation may terminate in resolution, or, if it continue long, in suppuration; which latter will lead frequently to ulceration, the formation of renal fistula, and the establishment of a purulent discharge, followed by hectic fever, which often ends fatally. In more

favorable cases, however, the pus passes out by the natural passages, and is found in the urine. Sometimes the disease proves fatal at an earlier stage, by inducing coma, owing to the retention of urea in the blood, which thus acts as a poison. Sometimes, also, typhoid symptoms appear early, and death occurs from pure exhaustion.

Treatment. Give to an adult an ounce or more of castor-oil, with twenty-five or thirty drops of laudanum, to act upon the bowels. It may be aided, if necessary, by warm water injections. The patient may take, as a common drink, gum-arabic water, barley-water, or flaxseed tea. Hot fomentations, applied perseveringly over the region of the kidneys, afford much relief. In severe cases, six to twelve leeches may be applied over the same region, after which the hot fomentations should be used. The warm hip bath often proves serviceable. To relieve the pain, half a drachm of laudanum, with two ounces of thin, warm starch-water, may be injected into the bowels; and the injection repeated every two, three, or four hours, or as often as necessary to prevent suffering. In case it is not convenient to use the injection, an opium (R. 44) or morphine (R. 45) pill, or twenty-five drops of laudanum, may be given every two, three, or four hours, or as occasion requires. Perfect rest should be enjoined. The catheter should be passed at regular intervals, to relieve the bladder, if necessary. The diet should be very light, as gruel, arrowroot, and milk.

This is a grave disease, and the patient should be placed under the care of a physician, when possible.

BRIGHT'S DISEASE.

(*Granular Degeneration of the Kidney.*)

Symptoms. This disease usually comes on gradually and imperceptibly, the first marked symptoms being frequent passing of water and debility. The patient also complains

of obscure pains in the loins, increased by pressure; the urine is scanty, or increased in quantity, of a cherry-red or brown color, or of a muddy appearance, of low specific gravity, and coagulated more or less by heat and nitric acid; the face is pale, the eyelids often œdematous, the skin dry, and there is nausea, with urgent thirst. In this state the patient may remain for months, or even for a few years, till at length some of the secondary disorders make their appearance.

Dropsy of the flesh (*anasarca*) and dropsy of the abdomen or belly (*ascites*) generally sooner or later appear. Complete recovery from this disease is rare, although it may occur.

Causes. Impure air; intemperance; mechanical injuries; cold; a previous attack of scarlet fever, followed by dropsy, &c.

Treatment. The patient should abandon all impure or intemperate habits, and should take good substantial food, with strict regularity; should keep the skin clean by frequent bathing, and wear clean and warm clothing; should sleep in dry, airy apartments, and if possible take moderate exercise in the open air; and, finally, should be prudent and temperate in all things.

If there is general dropsy, Epsom salts, or the citrate of magnesia, to produce free watery discharges from the bowels, will prove serviceable. If the dropsical effusion be large, a cathartic, composed of ten or fifteen grains of jalap and two drachms of bitartrate of potassa, may be given every two to four days, to reduce it.

Diuretics (R. 14, R. 15) are sometimes beneficial.

The following preparation of iron will do much good in nearly all cases: —

Take of Tincture of Chloride of Iron, . 1 ounce.
Pure Water, ... 3 ounces.

Mix. From half a teaspoonful to a teaspoonful may be taken in a wineglass or more of water three times a day.

This being a very grave disease, the patient should always, when possible, be placed under the care of a good physician.

BLOODY URINE. (*Hæmaturia.*)

Bleeding from the mucous membrane of the urinary passages may proceed from the kidneys, bladder, or urethra. It is common in the early stages of those forms of kidney disease which arise from a morbid state of the blood. It may also arise from malignant disease of the kidney or bladder; from the presence of a stone either in the kidney, ureter, bladder, or urethra.

Urine, containing blood, will be found of a dark-red, or even black color. When the blood is derived from the *kidney*, it is in general equally diffused throughout the whole urine; on the contrary, when derived from the *bladder*, the blood, for the most part, comes away in greater or less quantity at the termination of the discharge, the urine having previously flowed off nearly pure. When the blood comes away in drops or in a stream, unmixed with urine, the urethra is in all probability its source.

Treatment. This must vary with the circumstances under which the hemorrhage occurs. When there is malignant disease, or a stone present, astringents may be resorted to; the best being the tincture of chloride of iron, which may be taken in doses of twenty drops, in a wineglass of water, three or four times a day; or the gallic acid (R. 72) may be used instead of the iron. Perfect rest, in the recumbent position, should be enjoined. The bowels may be moved, if necessary, by castor-oil, and the patient should observe a light diet, and take draughts of mucilaginous liquids, as flaxseed tea, thick barley-water, or a solution of gum arabic.

Where there is some morbid poison in the blood, or actual

kidney disease, hot air baths, simple warm baths, and purgatives, will prove the most effectual, as they promote elimination from the skin and bowels, and allow the kidneys to rest. Hemorrhage from the urethra may often be checked by the application of ice, or by passing a large bougie, and leaving it in the passage for some hours. In hemorrhage from the bladder, when other means fail, a solution of alum or tannin may be injected into that organ, but this can only be done safely and properly by a physician.

DIABETES.

Diabetes, or diabetes mellitus, is characterized by the presence of sugar in the urine. The term *diabetes* signifies simply increased flow of urine, or diuresis; and this is generally a notable feature of the affection now to be considered. An excessive flow of urine, devoid of sugar, constitutes another form of diuresis, which has also been called diabetes, and distinguished as *diabetes insipidus*.

The quantity of water discharged in this disease is often very great, amounting, in some cases, to three or four gallons in the twenty-four hours. As so much water is thus got rid of by the kidneys, the most prominent effects will be great dryness and harshness of the skin, hardness of the feces, with constipation; pain in the loins, coldness of the extremities, with burning pain in the hands and feet; great emaciation and debility; sponginess of the gums; mental depression; together with a constant feeling of sinking at the stomach, inducing a voracious appetite. This disorder generally progresses slowly and insidiously, and often ends in, or becomes associated with, pulmonary consumption. In most cases this disease proves fatal.

Causes. *Predisposing.* — Hereditary predisposition. *Exciting.* — Intemperance; distress of mind; cold; drinking cold water when the body is heated.

Treatment. The first point is to regulate the diet, which should be nutritious, and as free as possible from everything containing sugar or starch. Of all kinds, animal food is the best; and the patient may take his choice of different kinds of meat, poultry, game, fish, and eggs. Cabbage, cauliflowers, spinach, water-cresses, and celery may also be allowed; but fruit, and especially potatoes, — which contain a large quantity of starch, — must be avoided. If bread is used, care should be taken that it is well fermented, and stale, and it will be better toasted. To allay thirst, a drink may be made by adding two drachms of diluted phosphoric acid to a pint of water. Weak beef tea, or mutton broth, will also often allay thirst better than other kinds of drink. Beer, wine, and coffee should be avoided. The clothing must be warm; and cold and damp especially avoided.

Amongst medicinal remedies, opium is the most important; it may be advantageously given in the form of Dover's powder, five grains of which may be taken three times a day. The hot vapor bath often proves beneficial by exciting the skin to action. Some preparation of iron, as R. 60, will generally prove serviceable. Cod-liver oil frequently does good. Persons afflicted with this disease should place themselves under the guidance of some regular physician.

IRRITABILITY OF THE BLADDER.

Irritability of the bladder is said to exist when an individual is troubled with a frequent desire to pass urine.

Causes. It may arise from organic disease of the kidneys, bladder, prostate gland, or urethra; or it may be due to the pressure of the enlarged uterus during pregnancy, or to the irritation of piles.

Symptoms. The desire to pass water comes on suddenly and very frequently, so that in some cases a patient has to pass urine every twenty or thirty minutes. There is gen-

erally an inability to resist the desire; but if this can be done, uneasiness and pain are induced by doing so.

Treatment. Remove the cause or causes of the trouble, if possible. Mucilaginous drinks, as gum arabic water, flaxseed tea, &c., will prove beneficial. The diet should be light and unstimulating, and all alcoholic liquors must be avoided. Half a teaspoonful of laudanum, mixed with a wineglass of thin warm prepared starch, may be injected into the bowels at bedtime, to produce a good night's rest. If the case proves obstinate, consult a good physician.

INFLAMMATION OF THE BLADDER.

Acute inflammation of the bladder is a severe disease, generally confined to a portion of the mucous surface, as the neck; but in severe cases the whole bladder and all its coats are attacked.

Causes. Mechanical injury; local irritation by stone; the inflammation of gonorrhœa extending along the urethra; cold; and all the causes of inflammation.

Symptoms. Fever; acute pain, swelling, and tension in the region of the bladder; pain and soreness, increased upon pressure, at the lower part of the bowels; frequent inclination to urinate; painful discharge of urine in small quantities, or complete obstruction to its passage; inclination to go to stool; vomiting.

Treatment. An opium (R. 44) or morphine (R. 45) pill, or twenty-five drops of laudanum, may be given every three to six hours, to relieve pain.

Hot fomentations over the bladder, and warm hip baths, will prove beneficial. The bowels may be kept open by Rochelle powders. The diet should be very light, with only a small quantity of fluids. Our object must be to keep the bladder as quiet as possible until the inflammation subsides.

PARALYSIS OF THE BLADDER.

Symptoms. Retention of urine; when the bladder is over-distended, the patient's water dribbles away by the urethra; the resistance to its escape at the neck of the bladder being overcome when the walls are incapable of further dilatation. Hence incontinence of the urine is often a symptom of retention. One of the earliest symptoms of paralysis of the bladder is pain at the neck of this viscus and in the glands penis; but after a time, little or no uneasiness is complained of, and as the bladder loses its sensibility, even the desire to void urine is not experienced. The constitutional disturbance is usually severe; the pulse becomes quick and feeble, the tongue furred, the appetite fails, there is great mental depression, restlessness, and the vital powers become greatly lowered. Occasionally the patient sinks into a state of stupor, and dies from exhaustion.

Causes. The paralysis may be due to over-dilatation of the muscular coat of the bladder. Thus: a person from some cause, as being in the company of ladies, or from being so situated as to be unable to void the urine when he feels the desire; on afterwards attempting to do so, he finds that he has lost the power.

It may also be a consequence of apoplexy, or of injuries to the head, or of injuries or diseases of the spine.

It is, generally speaking, a disease of old age, and seems particularly to attack gouty and rheumatic persons. Not uncommonly it is connected with disease of the neck of the bladder, or with enlargement of the middle lobe of the prostate gland. Women who have large families, and especially such as have had severe labors, sometimes suffer from paralysis of the neck of the bladder; so that they are either unable to retain the urine at all, or it comes away involuntarily on laughing, coughing, or making any sudden exertion. Time, astringent vaginal injections (R. 99 and

R. 147), cold hip baths, and tonics (R. 59, 60, 63), often effect a cure.

Treatment. Where the paralysis depends upon over distention of the bladder, the catheter must be introduced, and the urine drawn off *gradually*, since rapid collapse, followed by death, has occurred from the too sudden abstraction of a large quantity of urine. When the paralysis continues, the patient should learn to introduce the catheter for himself, using as large a one as the passage will allow; and especially should he be careful to always withdraw the whole quantity of urine, since that which is retained may, after a time, become decomposed, and not only contaminate the fresh secretion, as it flows from the ureters, but also give rise to most serious changes in the mucous and other coats of the bladder. The catheter should be passed about every six hours. To restore the contractile power of the bladder, galvanism and cold hip baths will do some good. The following pills often prove very beneficial: —

Take of Extract of Nux Vomica, . .	8 grains.
Extract of Gentian, . .	12 grains.
Powdered Licorice Root, . .	6 grains.

Mix, and divide into twelve pills. One may be taken three times a day for a week or two. If the case proves obstinate, consult a reliable physician as soon as convenient.

CHAPTER XI.

ON SOME DISEASES OF THE SKIN AND HAIR.

I will treat, in brief, of some of the most common and important diseases of the skin, but without making any attempt to classify them, believing it to be unnecessary in a work of this kind.

ERYSIPELAS. ST. ANTHONY'S FIRE.

Erysipelas is an inflammatory affection of the skin, and very commonly of the tissues beneath, characterized by the affected part becoming of a deep-red color, hot, painful, and swollen. No portion of the surface is exempt from attacks of it; but the integuments of the face and head are most commonly the seats of *idiopathic* erysipelas — that which arises from internal causes; while *traumatic* erysipelas — that which follows wounds, may occur on any part.

Symptoms. Idiopathic erysipelas resembles the eruptive fevers, inasmuch as it is preceded by fever and general constitutional disturbance. It often sets in with chilliness, followed by distinct rigors; sore throat is an early and frequent accompaniment of it; headache, nausea, vomiting, and diarrhœa may also be present. Then, on the second or third day from the chill, redness and swelling appear on some part of the skin, frequently on one side of the nose, spreading to the rest of the face, and often extending over the scalp, neck, and shoulders. The lips swell, the cheeks en-

Plate 3

Erysipelas

Rose Rash

large, the eyes become closed by their puffy lids, and all traces of the natural features may be completely lost. After three or four days the redness fades, the swelling subsides, and the cuticle falls off in the form of scales. In most cases the inflammation is merely superficial; occasionally it affects the deeper tissues, when it is termed phlegmonous erysipelas, and is then apt to be followed by suppuration — formation of matter — and sloughing.

This disease may prove fatal by the extension of the inflammation to the brain or its membranes, giving rise to effusion and coma. The same result may occur from the mucous membrane of the glottis becoming affected, so that the chink gets closed, and the patient dies unexpectedly from suffocation. In other cases, death is owing to failure of the vital powers. The larger proportion of those attacked recover.

Causes. *Predisposing.*—A full, plethoric habit; constitutional peculiarity; previous affections of the same nature. *Exciting.* — Contagion; cold; excessive heat, or vicissitudes of temperature; abuse of fermented liquors; suppressed evacuations; wounds, or local inflammation of the common kind, occurring in certain constitutions, in certain seasons, and in places where the disease already exists. It is often epidemic, most prevalent in spring and autumn, and frequently prevails in hospitals, and other crowded situations. In all cases, there is a more or less depraved condition of the blood.

Treatment. This must be conducted on the principle that we cannot cut short the disease, but only lead it to a safe termination. At the commencement, a purgative (R. 4, 5, or 6) will be beneficial. After the bowels have been well moved, the following mixture may be given: —

Take of Tincture of Chloride of Iron, . 1 ounce.
Pure water, ... 3 ounces.

Mix. One teaspoonful may be taken in a gill of water, four times a day.

Should this not seem to agree with the patient, R. 43 may be taken. Of all the local applications which have been recommended, the following gives most relief: —

Take of Poppy Heads, bruised, . . 1 ounce.
Boiling Water, ... 1 pint.

Mix, and steep in a covered vessel one hour, and strain. Add to the liquid twenty grains of sugar of lead. Flannels wrung out of this warm decoction, and assiduously applied to the inflamed parts, will do much good. Flour freely dusted over the inflamed part has often a soothing, cooling effect in mild cases; but it is apt to form a crust, which adheres to and irritates the diseased surface.

In the phlegmonous form of the disease, when suppuration has taken place, and pus or matter has become infiltrated through the areolar tissue, free incisions must be made to give it exit.

In *infantile erysipelas* the strength must be supported. If the mother's milk be deficient in quantity or quality, a vigorous wet-nurse should, if possible, be obtained. Cordials, as white-wine whey, wine, or brandy and water, &c., must be given.

ROSEOLA. ROSE-RASH.

This is a non-contagious inflammation of the skin, characterized by transient patches of redness, of small size, and irregular form, distributed over more or less of the surface of the body. The eruption, at first brightly red, gradually subsides into a deep roseate hue, and slowly disappears. It is accompanied by slight fever.

Causes. Teething; irritation of the stomach and bowels; drinking cold water when the body is heated; severe exercise.

Treatment. Give an adult a dose of Epsom salts to move the bowels. Children may take castor-oil, or rhubarb

and magnesia. A warm bath often proves serviceable. The affection soon disappears. If the patient is debilitated, tonics will do good.

NETTLE-RASH. (*Urticaria.*)

This is a non-contagious eruption, characterized by long, prominent patches or wheals, either red or white, of irregular shape, of uncertain duration, and accompanied by intense heat, a great burning and tingling in the affected spots, and great itching.

There are two varieties: one in which it is acute, running a short, rapid course; another in which it is chronic, very obstinate, and either persistent or intermittent. Both forms attack individuals of all ages and constitutions. The chronic intermittent variety sometimes lasts for months, or even years.

CAUSES. This complaint is caused by certain derangements of the digestive organs, arising, in some cases, from the use of particular articles of diet, such as shell-fish of different kinds, cucumbers, mushrooms, bitter almonds, &c. Certain medicines, as turpentine, balsam of copaiba, &c., will often cause it.

TREATMENT. Where the disease depends upon stomach derangement, an emetic (R. 1 or 2), followed by a purgative (R. 4, 5, or 6), will generally remove the trouble.

To relieve the itching, an alkaline bath (R. 134) will be beneficial. In the *chronic* form, a simple diet, without wine, beer, or spirits, must be rigidly adhered to. Laxatives (R. 8) and antacids (R. 76, 77) often prove beneficial. Tonics (R. 62, 63) will often be required to restore the tone of the stomach.

HERPES. TETTER.

This is a transient non-contagious affection, consisting of clusters of minute vesicles or blisters upon inflamed patches of irregular size and form. The eruption runs a definite course, rarely continuing for more than two or three weeks; it is not usually severe, nor is it accompanied by any constitutional symptoms.

When occurring on the pupace it is liable to be mistaken for syphilis.

Herpes Zoster, Zona, or The Shingles, is very characteristic in its appearance, position, and course. As the name implies, it surrounds the body like a zone or girdle, beginning somewhere about the mesian line, and travelling round one half the body, below the nipple, at the lower part of the back and groin, or at the upper part of the thigh. It is often preceded for several days, or even longer, by very acute, darting pains. It runs a mild course, and disappears in two or three weeks.

Herpes Circinatus is arrayed in rings, with a red border, and a centre of sound skin. It is often called "*ringworm.*"

Treatment. Administer a purgative, and regulate the diet. As a local application, R. 121 or 123 may be used. The trouble will probably disappear in a few days.

ECZEMA.

Symptoms. Eczema — sometimes called Running Scall — is characterized by an eruption of very small, slightly-raised vesicles or blisters, crowded together on broad, irregular patches of bright-red skin, accompanied by severe tingling and smarting. The fluid in the blisters soon becomes opaque and turbid, and in four or five days these minute blisters burst, the fluid is discharged, and dries into thin,

yellowish-green scabs. Fresh vesicles form on the surrounding skin, while the parts already affected are kept moist by constant exudation. When the eruption is of some standing, the skin presents a highly inflamed surface, studded with a large number of minute pores, which are covered with thin white membranes.

This disease may be acute or chronic. The usual duration of the acute form is from a week to a month.

Causes. *Predisposing.* — The female sex; the seasons of spring and autumn. *Exciting.* — Intense heat; the handling of dry powders, flour, metals, &c.

Treatment. The bowels should be moved occasionally by saline laxatives, as Rochelle powders, or small doses of Epsom salts. Warm baths often prove beneficial. The patient should observe a plain, simple diet. As a local application, the following preparation will prove serviceable: —

Take of	Glycerine, ...	2 ounces.
	Fluid Extract of Opium, . .	2 drachms.
	Rose Water, ...	14 drachms.

Mix. Apply two or three times a day.

A mixture of equal parts of lime water and sweet oil is excellent. The benzoated ointment of oxide of zinc may often be used with benefit.

In severe chronic cases, alteratives (R. 67, 68) should be tried.

PEMPHIGUS.

This disease is characterized by the appearance of large bullæ, or blisters, two or three inches in diameter, upon one or more regions of the body. The eruption is generally preceded, for twenty-four or forty-eight hours, by slight general indisposition, fever, and itching of the skin; small, red circular patches then form, gradually increase in extent,

and become covered with blisters, which either fade away on attaining their full size, or burst, and are replaced by thin, brownish-colored incrustations. The duration of this disease is usually from one to three weeks, although it occasionally becomes chronic, and prolonged for months.

CAUSES. Unwholesome and scanty food, bad ventilation, and all the causes of poor blood.

TREATMENT. Tonic (R. 60, 62) and alterative (R. 67, 68) medicines, with generous diet and fresh air, appear to be the remedies called for.

RUPIA.

This may be considered as a modification of pemphigus, occurring in persons of debilitated constitutions, and in those whose systems have been contaminated with the poison of syphilis. It is characterized by the eruption of small, flattened blisters, containing at first a serous or watery fluid, which soon becomes purulent, and concretes or dries into dark, black, rough crusts or scabs. When the scabs fall off they leave circular ulcers, of various sizes, indisposed to heal. The lower extremities are most frequently affected. Its duration varies from two or three weeks to many months.

TREATMENT. Warm baths, generous diet, wine, tonics (R. 62, 63), and change of air. In syphilitic rupia the iodide of potassium (R. 67) will generally effect a cure.

ECTHYMA.

This is an acute inflammation of the skin, characterized by large, round, prominent pustules, occurring upon any part of the body. The pustules are usually distinct, seated upon a hard, inflamed base, and terminate in thick, dark-

colored scabs, which leave superficial ulcers, followed by scars. It is often caused by different stimulating applications to the skin, such as lime, salt, sugar, &c. Grocers and bricklayers are subject to it.

Treatment. This must consist in the use of gentle laxatives, with alteratives, slightly acid drinks, and spare diet. The benzoated zinc ointment (R. 123) may be applied to the pustules.

IMPETIGO.

This is a severe non-contagious inflammation of the skin, characterized by an eruption of small hemispheroidal or flattened pustules, most frequently grouped in clusters, and forming thick, rough, yellowish scabs or incrustations. From beneath the incrustations a discharge takes place; the crusts become thicker and larger, and fall off, leaving a raw surface. It sometimes occurs on the face; is attended with constitutional disturbance; and as the pustules burst and form scabs, the heat and itching become intolerable. In children, this eruption sometimes covers the face like a mask, and is called *crusta lactea*. There is another form of the disease, differing from the one just described, inasmuch as the pustules are more scattered, being sometimes distributed over the entire limb, or even over the whole body.

Causes. The application of irritating substances to the skin; unwholesome diet; impure air; want of cleanliness. It is most liable to occur in spring and autumn; and children, and persons of a lymphatic temperament, are most subject to it.

Treatment. As a local application, the ointment of oxide of zinc (R. 123) will prove beneficial. The iodide of sulphur ointment is excellent.

Tonics and gentle laxatives may be used to advantage.

SCALD HEAD. (*Porrigo.*)

Symptoms. Small, round pustules, seated on the hairy scalp, and containing a yellow matter, which concretes so as to form a hard, prominent scab, presenting a central depression. The disease generally attacks children, but is not confined to young persons. The seat of the disease is the hair follicles.

Treatment. The hair must be cut close with sharp scissors, and the scalp be well washed, and the scabs must be softened with warm fomentations or poultices.

The best local application, in the great majority of cases, is the iodide of sulphur ointment, which may be applied daily for a considerable time.

TCH. SCABIES.

This is a contagious disease, — contagious in that sense which implies contact, — consisting of a vesicular eruption, presenting a number of watery heads, attended with violent itching. This affection may attack every part of the body, though it most frequently occurs in the flexures of the joints, especially on the fingers. The cause of the disease is an insect called the *Acarus Scabei*, which is to be found about a line from, but not in, each vesicle.

Treatment. Kill the insect by the free application of sulphur ointment (R. 122), and thus this loathsome disease will be cured. The contaminated clothes should be well fumigated, or smoked with sulphurous acid gas, — which may be procured by igniting a rag dipped in melted sulphur, — after which they must be thoroughly washed.

LICHEN.

This is a papular affection, readily recognized by the minute, hard, red elevations of the skin which it presents, together with the annoying itching.

CAUSES. *Predisposing.* — The seasons of spring and summer. *Exciting.* — Extreme heat; irritants applied to the skin; the handling of dry powders; abuse of ardent spirits; disorders of the stomach and bowels; and in children, the irritation of teething; the syphilitic taint.

TREATMENT. Warm baths, mild laxatives, and sour drinks will cure most cases of lichen.

The irritation may be allayed by the following lotion: —

Take of	Bichloride of Mercury, . .	6 grains.
	Chloroform, ...	30 drops.
	Glycerine, ...	2 ounces.
	Pure Water, ...	6 ounces.

Mix. Apply night and morning.

ITCHING. (*Prurigo.*)

This disease is characterized by an eruption of small pimples, of the natural color of the skin. It is a chronic affection, lasting for months or years, and causing great discomfort. The pimples are larger than those of lichen. It may occur on any part of the body, but is most common on the neck and shoulders. In some instances it attacks the external parts of generation in both sexes, or the verge of the anus.

The itching arising from prurigo must not be confounded with that caused by insects. It may be well to here mention that the human body may be infested with three kinds of lice; viz., the *clothes louse*, *head louse*, which lives in the hair, and the *crab louse*, which infests the hair of the pubes.

They may all be destroyed by cleanliness, a fine-tooth comb, and mercurial ointment, or "unguentum."

Causes. All causes of debility and cachexia; friction; irritation of the skin or mucous membrane. It occurs most frequently in spring and summer.

Treatment. The general treatment must consist of a light, nourishing diet, the avoidance of stimulating food or drink, and the use of sarsaparilla (R. 67) or acid tonics (R. 146, 148).

The following lotion may be used to allay the itching: —

Take of Sulphate of Zinc, . . . 8 grains.
Glycerine, ... 2 drachms.
Rose Water, or Pure Water, . 4 ounces.

Mix. Apply night and morning.

In obstinate cases the following may be tried: —

Take of Bichloride of Mercury, . . 4 grains.
Glycerine, ... 2 drachms.
Water, ... 4 ounces.

Mix. Apply twice a day.

SCALY LEPROSY. (*Lepra Vulgaris.*)

This is, perhaps, the most obstinate and troublesome of all diseases of the skin. It is a non-contagious, chronic eruption, consisting of red, scaly, circular patches, of various dimensions, scattered over various parts of the body, but more frequently found in the neighborhood of the joints, especially near the knee and elbow. By degrees the patches increase in size and number, and extend along the extremities to the trunk.

Causes, &c. Obscure in many cases. An eruption resembling this may arise from syphilis. It is termed *syphilitic lepra*, and is copper-colored. The disease is essentially

chronic, obstinate and difficult of cure, and disappears and returns without obvious cause.

Treatment. The diet must be simple, and all stimulating food or drink avoided.

Preparations of arsenic, iodine, and mercury are used internally in the treatment of this disease; but as these powerful medicines can hardly be managed with safety by non-medical persons, all afflicted with the disease should place themselves under the care of some regular physician. Alkaline baths (R. 134) and the iodide of sulphur ointment may be used with benefit.

DRY TETTER. SALT RHEUM. (*Psoriasis.*)

This is a non-contagious inflammation of the skin, characterized by the development of patches, of various extent and form, slightly raised above the level of the skin, covered by thin, whitish scales of altered cuticle, and accompanied by fissures of the skin. The eruption may be local, or it may be diffused over the whole body. This disease is closely allied to lepra in its nature and appearance. In lepra the patches are irregular, and not depressed in the centre; in psoriasis they are circular, and depressed in the centre, with elevated margins. Both affections are sometimes hereditary.

Treatment. Alteratives and tonics internally. As external applications, tar ointment, equal parts of glycerine and rose water, and many other things, prove beneficial.

DANDRUFF. (*Pityriasis.*)

Symptoms. This disease is a chronic inflammation of the skin, attended with redness and itching, and characterized by the production of minute white scales or scurf in great

quantity. It may attack any region; but the scalp and parts covered with hair are the most common seats of it. The disease is often very rebellious to treatment.

Causes. *Predisposing.* — Youth and old age; female sex; debility. *Exciting.* — Irritation of the skin by heat, by the strong rays of the sun, or by chemical or mechanical irritants.

Treatment. Cleanliness; warm baths; and tonic and alterative medicines.

As an external application, the following lotion often proves very beneficial: —

Take of	Liquor of Potassa,	2 drachms.
	Diluted Hydrocyanic Acid,	1 drachm.
	Glycerine,	2 ounces.
	Rose Water,	5½ ounces.

Mix. Apply to the scalp, or part affected, night and morning.

ACNE.

This is a chronic pustular affection, characterized by small pustules with a deep red base, leaving behind small, hard, red tumors. Its primary form is, in most cases, a hard, red pimple. It is most commonly seen on the nose, cheeks, temples, and forehead, but frequently appears on the back and upper part of the chest, and sometimes on the neck and shoulders. It may exist in all these situations in the same person. It is a chronic disorder, not accompanied by constitutional symptoms; is most frequent from fourteen to thirty-five, and occurs in both sexes.

Causes. Hereditary predisposition; dyspepsia; excess in eating and drinking; uterine disorders; "change of life," &c.

Treatment. Warm baths are beneficial. The iodide

of sulphur ointment, applied night and morning, is excellent.

The diet must be restricted, stimulants of all kinds abstained from, and mild laxatives occasionally employed.

LUPUS. THE WOLF.

This is a most formidable affection. It commences with purple and red spots, or more frequently livid, indolent tubercles, the chief character of which is their tendency to end in destructive ulceration of the surrounding parts. There are two varieties of this disease — *lupus non exedens*, and *lupus exedens*, or *noli me tangere*. In the *first* there is no ulceration, yet the tubercles leave deep scars behind them; when it spreads rapidly and superficially, it leaves the skin crossed by white scar-like ridges and bands. The *second* is very destructive; it attacks the nose more frequently than any other region of the body, though why it does so is unknown. The extent of parts which it destroys varies; sometimes the whole nose being eaten away, sometimes only the point.

Causes. *Predisposing.* — The female sex; the scrofulous diathesis. It usually occurs in persons under thirty. *Exciting.* — Obscure. It is not contagious.

Treatment. This is a very serious disease, and should always, when possible, receive attention from a physician. It generally requires a prolonged course of powerful alteratives. In some cases strong caustic applications have to be used to destroy the ulcerated surface, and excite the parts to a more healthy action. The iodide of potassium (R. 67) internally, and the iodide of sulphur ointment externally, may be used to advantage in nearly all cases.

BARBER'S ITCH.

Any eruption appearing on the face, and believed to have been contracted from a barber's brush, sponge, or towel, is denominated by people, Barber's Itch.

Treatment. In some cases it will be necessary to discontinue shaving for a time. The following wash often proves serviceable: —

Take of Bichloride of Mercury, . .	6 grains.
Glycerine, , . . .	½ ounce.
Rose Water, ...	1½ ounces.

Mix. Apply two or three times a day.

If this fails, try the iodide of sulphur ointment. Do not be too impatient; it requires a little time to cure these eruptions.

SYCOSIS. MENTAGRA.

This affection is limited to that portion of the face on which the beard grows — the chin, the cheeks, and the upper lip, rarely extending to the integuments immediately adjacent.

Symptoms. Redness, tension, and smarting of the skin of the chin, lower jaw, or upper lip, followed by an eruption of small, red points, which, in the course of a day or two, ripen into distinct pointed pustules, traversed by a single hair. After five or six days more the pustules burst, discharge their contents, and form thin, brown scabs, which fall off, and are sometimes not renewed. When the disease has continued for some time the beard falls off. In chronic cases the skin of the parts is covered with tubercles. This is often an obstinate disease. It is alleged to originate in a peculiar species of parasitic plant, and to be communicated by contagion.

Treatment. The same as for barbers' itch. Apply to a physician.

ELEPHANTIASIS. BARBADOES LEG.

This disease is characterized by great swelling and hardening of the skin and tissues beneath, producing marked deformity. It frequently attacks the lower extremities, causing great swelling, so that the limb becomes, in many cases, more than double its natural size. The patient is then said to have an "elephant leg." It is not very common in this country, occurring principally in the West Indies, being not uncommon on the Island of Barbadoes, hence often called Barbadoes Leg. It generally continues for life, causing more or less constitutional disturbance.

It attacks both males and females, and the rich and poor indiscriminately.

Causes. *Predisposing.* — Hereditary taint; the causes of scrofula; certain climate. *Exciting.* — Obscure.

Treatment. Stimulating applications externally, and alteratives and tonics internally.

DISEASES OF THE HAIR.

The diseases of the hair consist in alterations of its natural color or characters, and in its partial or total loss. Some few cases have been recorded in which the hair has undergone a sudden change of color, from a light to a dark hue, or the reverse, without any apparent cause, or after some acute disease; and not unfrequently, when it is reproduced after it has been removed for some fever, or other affection, it grows of a much darker color than it had been originally. This is usually the case when it has been kept cut close for any length of time in the treatment of any of the eruptions of the scalp.

Loss of color in the hair is one of the natural results of old age, but it often occurs at a comparatively early period of life, either from constitutional causes, or from extreme mental anxiety. The effect of the latter is well marked, and some cases have been witnessed in which the hair has become perfectly white in the space of a few hours, while an individual was laboring under some violent emotion of the mind. These demand no other notice here than a mere reference.

The most important of the constitutional causes of gray hair is hereditary predisposition; and examples of premature grayness of the hair, descending through several generations, in certain families, are very numerous.

Blanching of the hair is sometimes associated with debility of the vital powers. It is occasionally witnessed in those who die young of consumption, or other lingering diseases.

Treatment. No treatment, local or general, has any effect over the forms of grayness arising from age and hereditary predisposition.

For blanching of the hair, arising from debility of the vital powers, the proper treatment is to restore the system to a state of robust health, if practicable, by the use of such remedies as may be appropriate for the individual case.

Should the hair be dry and crisp, and the surface of the scalp appear bloodless, R. 143 may be used with benefit. Cutting the hair short, or removing it altogether, by shaving the scalp, occasionally proves useful.

BALDNESS. (*Alopecia.*)

General baldness is in many persons the accompaniment of old age, being usually associated with gray hairs; nor can it be regarded as a disease, except when it occurs in comparatively early life. Some few cases of baldness from

birth have been recorded, in which, however, it was due to non-development of the hair follicles.

Permanent baldness is at times the result of some eruptive disease of the scalp, especially of porrigo, and is then a consequence of the inflammatory action which may exist extending to the bulbs. After most diseases of the scalp, however, although the hair falls out, it is reproduced. Loss of hair, partial or general, is also a not unfrequent sequence of fevers and acute inflammatory affections, and of syphilis; in the former case it generally grows again, but in the latter the baldness is frequently permanent. Loss of hair from natural causes, at an early age, is, like the premature change of its color to gray, hereditary in the majority of instances, is also caused by violent emotions of the mind, or prolonged mental anxiety, and is connected, pathologically, in some individuals, with general debility, or diminished vital action. Baldness existing from birth, and that arising from old age, is incurable, as is also that form of it which is hereditary. In other cases, repeatedly shaving the head, or keeping any hair that may remain cut close for a time, and the application of R. 143, often prove beneficial.

CHAPTER XII.

DISEASES OF WOMEN, &c.

ITCHING OF THE VULVA. (*Pruritus of the Vulva.*)

Symptoms. The patient experiences an intolerable itching of the vulva, or external parts, and sometimes it extends up the vaginal canal.

Treatment. Wash the parts night and morning, after which apply the following lotion: —

Take of Acetate of Lead, . . . 30 grains.
Liquid Extract of Opium, . 2 drachms.
Water, ... 1 pint.

Mix. If this does not succeed, try the following: —

Take of Calomel, ... 1 drachm.
Glycerine, ... 1 ounce.
Lime Water, ... 15 ounces.

Mix. Apply two or three times a day. This disease is sometimes a symptom of some other affection, which must be cured before this will cease.

LEUCORRHŒA. WHITES. FLUOR ALBUS.

This disease is generally the result of inflammation of the vaginal canal, and is one of the most common and troublesome affections to which women are liable. It may be either acute or chronic.

Symptoms. In the acute form the patient first experiences

a sense of heat, soreness, and fulness in the vagina; sometimes accompanied with itching of the external parts. These symptoms increase after a time, and pain, smarting, a feeling of weight and bearing down are added. If the attack be violent, weight in the lower part of the bowels, and pain extending down the thighs, may be experienced, and the irritation may even be extended to the bladder. At first there is no discharge; but in the course of a day or two, the patient notices a more or less profuse flow of a thin, colorless, acid, and, occasionally, acrid fluid, which, in a little time, becomes whitish, greenish, or yellowish, and of much thicker consistence, and without any diminution in the quality, until the attack subsides.

If the attack is but slight and temporary, no constitutional symptoms will be developed; but if severe, the patient will suffer from chills, heaviness, and languor, pain in the back and round the loins, headache and thirst, with a quick pulse and coated tongue.

The general symptoms, as well as the local ones, are, however, generally mitigated by the establishment of the discharge.

Causes. Cold, violence, excessive sexual indulgence, exertion soon after delivery, or inflammation extending internally from the external parts, &c.

Treatment. In severe cases the patient may be confined to the bed, and the diet should be light. A warm or hot hip bath, night and morning, will be advisable, and the patient's bowels may be kept free by her taking, every day or two, a Rochelle powder, or small dose of Epsom salts. Vaginal injections of warm water, three or four times a day, and the application of warm fomentatons to the external parts, will prove serviceable. When the inflammation has somewhat subsided, dissolve one drachm of acetate of lead in a pint of warm water, and use as a vaginal injection three times a day. In the majority of instances, an early and diligent use of these means will cure the disease; if not, it

will probably assume the chronic form, which we will next consider.

CHRONIC VAGINAL LEUCORRHŒA.

This is one of the most common diseases to which females are liable, few escaping an attack of it at some period of their lives.

SYMPTOMS. The patient experiences a colorless or whitish discharge from the vagina. In some cases it is of a brownish color, and acrid, excoriating the edges of the external parts. There is very little increase of heat, and seldom any pain or tenderness. If the discharge be very profuse, considerable weakness may be induced, with great weariness after exertion. There is generally some complaint of aching in the back and loins, and, after the discharge has continued long, dyspeptic symptoms may appear.

CAUSES. This form of leucorrhœa is frequently a sequel to an acute attack, but may be caused by frequent childbearing, excessive sexual intercourse, ulceration of the neck of the womb, displacements, &c.

TREATMENT. Remove, if possible, the causes of the disease. It is not often that lowering measures are required; but tonics, such as R. 59, 60, or 63 will generally prove beneficial. Balsam of copaiba and cubebs often prove beneficial, and R. 18 or 19 may be tried. But the most powerful remedies are astringent solutions (R. 99, 100), which may be thrown up the vagina by means of a syringe or clyster-pipe. First, use an injection of simple warm water; after which, the solution. It should be administered slowly, and in the recumbent posture, and retained from ten to twenty minutes. The injection should be repeated two or three times a day.

UTERINE LEUCORRHŒA.

When the discharge originates in the uterus, it is termed *uterine leucorrhœa*.

Treatment. In addition to the measures recommended for *vaginal leucorrhœa*, some application to the interior of the womb may be necessary; for which, apply to a competent physician.

INFANTILE LEUCORRHŒA.

This consists of a whitish or creamy discharge from the external parts (vulva) of infants and older children. It usually occurs among the neglected and badly-nursed children of the poor.

Symptoms. Local uneasiness, itching, and scalding on making water; the external parts are found inflamed and swollen, but for some time there is no discharge. After the disease has continued for a few days the discharge commences, and, being of an acrid character, causes the child to be very uneasy and restless.

Treatment. Wash and foment the parts well with warm water, milk and water, or poppy-leaf tea, two or three times a day, after which apply the following: —

Take of	Acetate of Lead, . . .	20 grains.
	Water, ...	1 pint.

Mix. Use as a wash; and if the inflammation have extended into the vagina, inject some of it by means of a small syringe. The general health and condition of the child must be improved; and for that purpose pure air, cleanliness, good food, and some preparation of iron (R. 68) will be required.

INFLAMMATION OF THE UTERUS, ETC.

Of the Neck of the Uterus. — The neck of the uterus is liable to congestion, inflammation, ulceration, hardening, displacement, &c.

Causes. Cold, irritation from sexual intercourse, pregnancy, child-bearing, &c.

Symptoms. At first occasional aching in the back, and

some mucous discharge. In some cases the pain in the back and region of the ovaries is very severe, accompanied with a sense of dragging, and extending down the thighs, and increased by standing or walking. In almost all cases the patient suffers from leucorrhœa (whites), more or less profuse. The general health soon becomes impaired, and the menstrual function more or less deranged. In these cases pregnancy rarely takes place, and sexual desire is enfeebled in most cases, and quite destroyed in many; intercourse being often very painful, and always occasioning increased irritation.

Treatment. The stage of the disease, and the condition of the parts, must determine the remedies to be employed; and as the sufferers cannot learn these facts for themselves, they should consult some reliable physician, and follow his instructions.

The body of the uterus is liable to become the seat of inflammation. It may arise from taking cold during the menstrual period, violent exertion, blows, &c.

Symptoms. Chills, succeeded by feverishness; occasional paroxysms of sharp pain in the back and lower part of the bowels, and darting down the thighs. This affection may be either acute or chronic. In chronic cases the pain is less severe than in the acute form.

Treatment. Rest, low diet, hot hip baths, and vaginal injections of warm water, will prove serviceable. Opiates may be taken to relieve pain. In some severe cases leeches applied to the neck of the womb give great relief; but this method should not be attempted except by a physician.

TUMORS, POLYPUS, AND CANCER.

Although the womb is liable to these affections, I do not deem it advisable, in a work of this kind, to treat at length upon them; for they can only receive proper attention from a physician.

DISPLACEMENTS OF THE UTERUS.

Three kinds of displacements are common; viz., *Prolapsus*, *Anteversion*, and *Retroversion*.

PROLAPSUS UTERI,

Signifies a sinking or falling of the uterus. It may be slight or considerable. When it protrudes beyond the vulva it is termed *procidentia uteri*.

Causes. Heaviness of the uterus itself; hence it often occurs, to some extent, in the early stage of pregnancy; relaxation of the ligaments, and getting up too early after confinement; tight lacing; dancing, running, or any severe muscular exertion; leucorrhœa, and other exhausting discharges, coughing, straining, &c.

Symptoms. In some cases there is little or no suffering, while in others there is pain in the back and groin, extending down the thighs to the knees or toes. In some cases the patient suffers great distress in standing or walking, and in voiding the urine and feces. Pain in passing the urine is sometimes present, from the extension of the irritation to the bladder. Leucorrhœa is sometimes present, and in other cases menorrhagia, or increase of the menstrual flow. The stomach and bowels are sympathetically affected; there is loss of appetite, and the tone of both stomach and bowels is lost. Patients thus afflicted often become morose and irritable.

In *procidentia uteri* the patient frequently suffers little or no inconvenience, except that arising from the external presence of the organ, or its acrid discharges. In addition to the above symptoms, a per vaginum examination reveals the nature of the disease.

Treatment. In slight cases, rest in a horizontal position, with cold or astringent injections (R. 99 or R. 100), is often sufficient. In decided prolapsus, and almost invariably

in procidentia, mechanical support, by means of pessaries, becomes necessary. Bandages and external supporters, when they relieve, act by supporting the abdominal muscles and those of the back; hence they may be useful in women who have borne many children, and in whom these muscles are much relaxed, but they must not be regarded as *uterine supporters.*

ANTEVERSION OF THE UTERUS.

By *anteversion* is understood that form of displacement in which the body of the uterus is directed forwards on the bladder, while its neck points backwards. *Anteflexion* is a bending of the uterus at the neck, by which the body is caused to fall or tip forward.

Causes. Violent expulsive efforts, either during or after emptying the bladder; accumulation of feces in the rectum, falls, blows, obstinate diarrhœa, and pregnancy in its early months.

Treatment. The organ may, in most cases, be readily replaced by a physician, if it has not become adherent, by hooking down the neck with the forefinger of one hand, while the body is elevated by the other. The patient should afterwards be kept in bed, on her back, for several days. Perhaps many cases may be cured by directing the patient to let the bladder fill, and to keep the bowels empty.

RETROVERSION OF THE UTERUS.

By this term is understood a falling or tilting backwards, either of the body alone or of the entire uterus. When the body alone is forced backwards, it is termed *retroflexion.* When the entire organ takes that position it is called *retroversion.*

Causes. This affection usually occurs in women who have borne children, or who are pregnant, and is caused by a sudden impulse backwards, either by a distended bladder, by long standing, or by a sudden expulsive effort. During

the early months of pregnancy the uterus is peculiarly liable to this displacement. The accident may also happen from falls, shocks, lifting weights, &c.

Symptoms. Violent bearing down pains, sense of fulness and distention about the loins and lower part of the back, dragging and tension in the groins, and inability to, or difficulty in, passing the urine or fæces. A per vaginum examination reveals the neck of the uterus thrust forwards, while the vagina seems to be obstructed by a hard substance, which is the body of the uterus turned down.

Treatment. In some recent and slight cases merely emptying the bladder and bowels are sufficient, the uterus recovering itself through the contractions of its ligaments. In more obstinate cases, a physician will remedy the difficulty by pressing up the body by one or two fingers in the rectum, assisting them, if necessary, by a finger of the other hand in the vagina, by which the neck of the womb can be hooked down. The after treatment is, rest in a horizontal posture, and the avoidance of the distention of the bladder and rectum.

Various forms of pessaries have been recommended for these affections; but I believe they are not so often necessary as some suppose.

MENSTRUATION.

By the term *menstruation* is understood the "*monthly sickness*" to which females are naturally subject, between the ages of about fourteen and forty-five. This sickness, from its occurring at this regular interval, is called the *menses* or *catamenia*, and the female in whom it so takes place is said to be "*regular.*"

The menstrual function ceases at about the age of forty-five, and to this period is often applied the terms *critical period*, *turn of life*, &c.

During the whole of a woman's menstrual life she is capable of bearing children; after this her reproductive function ceases.

The flow generally returns every twenty-eight days, and lasts from four to six. What would be a profuse discharge in some, is merely natural in others, as every woman is a law to herself. Most women perhaps have a little pain, and some other unpleasant sensations, during their menstrual periods; but when much pain or inconvenience is experienced at such times, the function is not properly performed; and this brings us to

MENSTRUAL DISEASES.

AMENORRHŒA.

By *amenorrhœa* is understood an *absence* of the menstrual flow. There are two varieties: 1st, when they have never appeared; and 2d, when, having once appeared, they have been arrested from any cause. The *first* may depend upon several causes; viz., congenital malformation, as absence of the ovaries, uterus, or vagina, closure of the mouth of the uterus, imperforate hymen, &c. When any of these causes are supposed to exist, the case should be submitted to some regular and competent physician. If, as often happens, the retention be dependent on constitutional causes, they must be removed. If the patient is of full habit, purgatives, low diet, and warm hip baths will be proper. When the patient is debilitated, an opposite plan of treatment must be followed: tonics, as iron (R. 59 or R. 60), a generous diet, exercise, warm clothing, hip and foot baths; always bearing in mind that the woman is not *sick* because she does not menstruate, but that she does not menstruate because she *is* sick; or, in other words, that absence of the menstrual flow may be merely a symptom of impaired health.

The *second* variety, or suppression of menstruation after it has once appeared, may occur also in two forms — *acute* and *chronic*. When arrested during the flow, as by cold, emotions, &c., it is *acute*. When it occurs in consequence of the acute, or from gradual failing of health, disease of the ovaries, and the "*turn of life*," it may be termed *chronic*.

TREATMENT. In the *acute form*, if there are much fever and headache, a cathartic may be taken, also warm hip baths. If the patient suffers much from pain, a proper dose of laudanum may be taken to relieve it.

In the *chronic form*, the cause must be removed if possible; and, in addition to the measures recommended for the acute form, *tonics*, such as the preparations of iron (R. 60, R. 62) will prove beneficial. The tincture of aloes and myrrh, taken in one or two drachm doses, daily, to regulate the bowels, often proves advantageous.

DYSMENORRHŒA.

By *dysmenorrhœa* is understood *painful* or *difficult menstruation*.

CAUSES. This affection may depend on a faulty condition of the system, upon neuralgia of the uterus, or inflammation of that organ, or it may depend on mechanical constriction, or stricture of the neck of the uterus.

SYMPTOMS. The discharge is often scanty, accompanied with great pain in the back, loins, fever, &c.; and there is often expelled membranous or shreddy clots.

TREATMENT. During the paroxysm, warm hip baths, and laudanum, or morphine, to relieve the pain. If the bowels are constipated, a mild purgative should be given. Between the menstrual periods, the treatment must be such as will tend to remove the cause of the trouble. If the patient is debilitated, tonics will be serviceable. If the uterus be in a state of chronic inflammation, the treatment proper for that affection should be pursued. When the difficulty is

owing to stricture of the neck of the uterus, it must be dilated, for which purpose apply to some good physician.

MENORRHAGIA.

By *menorrhagia* is meant an increase of the menstrual flow, either in frequency or in quantity.

Causes. Nervous and vascular excitements, fevers, internal congestions, displacements of the uterus, and approach of the *critical period*. It may also be caused by foreign growths in the uterus.

Treatment. In persons of a full habit, rest, low diet, and gentle laxatives are proper during the attack. The following powders also prove beneficial in most cases: —

Take of Gallic Acid, ... 2 drachms.
Powdered Opium, . . . 6 grains.

Mix, and divide into twelve powders. One powder may be taken in syrup, every fourth hour.

In debilitated cases, rest, preparations of iron (R. 59, 60), and nourishing diet, will be required. When the hemorrhage occurs about the critical period it often resists the ordinary treatment. Under such circumstances the following mixture will often prove beneficial: —

Take of Fluid Extract of Ergot, . . 2 drachms.
Tincture of Cinnamon, . . 2 drachms.
Simple Syrup, . . . 1 ounce.

Mix. A teaspoonful may be taken three or four times a day. The powders mentioned above will be found beneficial in nearly all cases of menorrhagia.

Astringent injections (R 100, 147) into the vagina often prove serviceable. When menorrhagia is caused by displacement of the uterus, that must be rectified; when arising from foreign growths, they will require proper attention. In all obstinate cases, consult a regular physician as soon as convenient.

VICARIOUS MENSTRUATION.

In many cases of *suppressed* menstruation, where the monthly effort occurs without the uterine secretion, and where the system generally is suffering from the consequent plethora or irregular distribution of blood, an attempt is made by the natural powers to afford relief by a discharge of blood from some other part, generally one which is already enfeebled. This is called *vicarious menstruation.* It is recorded to have taken place from the nostrils, lungs, gums, bladder, and other parts of the system.

Treatment. If the attack has commenced without previous warning, little or nothing can be done except to watch the patient. If the discharge be from the lungs, and is quite profuse, the gallic acid and opium powders recommended for menorrhagia may be given. A cathartic may also be of service. After the attack has passed, efforts should be made to restore the menstrual function.

PREGNANCY.

By the term *pregnancy* is understood the state of being with child.

Signs of Pregnancy. — Cessation of the menses, though not invariable, is one of the earliest and most certain signs of pregnancy. If a woman has previously been regular, is in tolerably good health, and knows of no other very evident cause of the cessation, this sign will seldom be deceptive. Some women continue to be "regular" during pregnancy, and a suspension of the menses sometimes occurs without any obvious cause; but these are rare cases, and are only exceptions to the general law.

A fulness, tenderness, and sudden growth of the breasts, is a sign of some value when taken in connection with the former; but it is not to be depended upon when considered

by itself. The color of the areola, or circle around the nipple, is perhaps one of the surest signs, except the first. Very early in pregnancy the areola grows darker colored, and enlarges in circumference; and there is also noticed an enlargement of the follicles situated in it, with a soft and moist state of the integuments.

Quickening is the term applied to the period when the motion of the child is first experienced. It usually occurs between the fourth and fifth months, and is a sign of some value, although females are liable to mistake the movement of wind in the bowels, and the spasmodic twitching of the abdominal muscles, for the motions of the child.

Enlargement of the abdomen usually begins to be perceptible about the end of the second, or beginning of the third month; before this the abdomen is often flatter than usual.

Occasional faintness, a shortness of breath, a sense of fulness in the lower part of the abdomen, a bearing down, and a difficulty in voiding urine, frequently occur in the early months; but a symptom of much more importance is a periodical sickness at the stomach, and vomiting. This generally comes on in the morning, on first rising out of bed, though it may come on at any time in the day, and is sometimes almost constant. A capricious appetite, longings, and antipathies, and an unnatural irritability of temper, are not unfrequent symptoms, and though of little importance, separately considered, may strengthen an opinion formed from other signs. Although often extremely difficult, during the first three or four months, to decide whether a female is pregnant, as we approach the fifth or sixth month, a physician may often, by auscultation, detect the beating of the fœtal heart, which settles the question.

But, to briefly recapitulate; — if the menses are suspended, the breasts enlarge, the areolæ grow darker colored, and there be periodical sickness and retching, there will be but little doubt of the existence of pregnancy.

The *duration* of pregnancy is about nine calendar months, or two hundred and seventy-four days.

LABOR.

By this term is understood that process by which the contents of the pregnant uterus are expelled. The principal agent in effecting this process is the uterus itself, assisted, however, by the action of the diaphragm and abdominal muscles.

STAGES OF LABOR.

Labor may be divided into three stages. The first terminates with the dilatation of the mouth of the womb; the second with the delivery of the child, and the third with the expulsion of the placenta, or "after-birth." The *first stage* is generally the longest and most distressing, both to practitioner and patient. The pain, although not so great as in the second stage, is of a more distressing character, and more difficult to bear. The patient is more irritable, uneasy, and alarmed as to the result. Nausea and vomiting also occur during this stage, and, it is thought, assist in effecting it.

In the *second stage*, the phenomena that present themselves differ essentially from those of the preceding. The pains succeed each other with greater frequency, and last longer; they acquire a more *expulsive* character, and are attended with strong bearing down efforts of the abdominal muscles. Upon the approach of each pain, the woman seizes hold of anything within her reach, and brings the muscles of the extremities, back, and abdomen to aid her in the effort. These are commonly called *bearing down pains*, and continue until the child is born.

The *third stage* is occupied by the detachment and expulsion of the *after-birth;* the period occupied in effecting this varies in duration. Sometimes it is expelled with the body of the child; at others, it is retained for some time after. Usually, after an interval of ten or fifteen minutes, pains of a different character follow; by which the detachment of

the placenta is effected, and it is extruded into the vagina. By the voluntary efforts of the woman, assisted by the contraction of the vagina, it is usually soon expelled, and the labor is completed.

Presentations, &c. By the term *presentation*, is understood that part of the child which comes first into the world. In most cases the head *presents*, and this is the most desirable presentation; since with the child in this position, the labor is likely to be easy and speedy, and to terminate favorably to both mother and child. When the *breech* presents, there is always some danger to the child. In cases where a hand, or the abdomen, or back presents, *turning the child* is generally necessary before it can be born; and as non-medical persons are not qualified to judge in regard to what part is presenting, at the commencement of labor, or to rectify unnatural presentations when known to exist, some regular and reliable physician, if at hand, should always be called to take charge of cases of confinement.

MANAGEMENT OF A LABOR.

The management of a labor includes all that is done for a parturient patient, from the beginning of her pains till the uterus is emptied, and the safety of both mother and child secured.

As this book is only intended as a *guide* for non-medical persons, when a physician is not at hand, I will proceed to give only such directions as will enable any person of mature years, and ordinary intelligence, to properly manage a case of *natural labor*, occurring under such circumstances that a physician cannot be called in season.

During the *first stage* the patient need not be confined to bed, but may be allowed to sit up, or even walk about, if she desires it.

The condition of the bowels should always be early attended to; and if they have not been acted upon lately, should be unloaded, either by a large warm water injection,

or a good dose of castor-oil. If the bowels have been constipated for some days, it may be advisable to give both the oil and the injection. The patient should be advised to empty her bladder as often as she experiences a desire. The diet of the patient, when the first stage is protracted, should be light and unstimulating, as gruel, milk, &c. There should always be in readiness several strong ligatures, or pieces of tape, for the cord, a pair of sharp scissors, some strong pins, and a "a binder," or broad bandage for the female. The bed should also be properly prepared. This is best done by spreading a piece of oiled cloth, or a rubber blanket, if at hand, upon the mattress, to protect it at the point the patient is about to occupy; over this may be placed several blankets or coverlets, folded square, to receive the discharges, &c. These latter can be easily removed after the labor is completed, without disturbing the patient, leaving the bed linen beneath unsoiled.

The *second stage* is often announced by the rupture of the membranes, and discharge of the "*waters*." As soon as this occurs, the patient should retire to her bed.

The best position for the woman during this stage is on her left side, with her hips close to the edge of the bed, and her knees drawn up towards the abdomen, and separated by a pillow or folded blanket. As the head of the child emerges into the world, it should be received in the hand of the attendant, and the whole body carefully carried forward, *as the pains or contractions of the uterus expel it*, and not by any means *pulled out*, in order to relieve the woman from pain, and facilitate the delivery. As the child comes into the world, care should be taken to observe whether the cord is twisted about the neck, and if it is, to disengage it.

When the child is entirely born, and breathing is established, or the cord has ceased to beat, it may be separated from the mother. To do this, one strong ligature should be tightly tied around the cord, about two inches from the

body of the child, and another about an inch farther on, and the cord cut between them. The child may then be placed in a warm blanket, and given to an assistant, who will proceed to carefully and thoroughly wash it with warm water, using a little castile soap. After it is washed, take a piece of old linen or cotton, about four inches square, cut a round hole in the centre, large enough for the end of the cord to pass through; lay it upon the abdomen of the child, and then apply a bandage to the navel, and secure it by a piece of thread. Lay the cord upon the abdomen, with its end pointing upwards; then apply a broad bandage to keep it in place. These things being done, the child may be dressed, and placed in bed. It is well to put it to the breast as soon as the mother is sufficiently rested. It is not only useful to the child by supplying it with the early secretion, which is laxative, but it is also beneficial to the mother, inasmuch as it excites contraction of the uterus.

It is customary to give the child a little molasses and water, within an hour or two after birth. It will also be well to give it a teaspoonful of water occasionally, to prevent thirst. On the second or third day, milk generally appears in the breasts, after which the child may be nursed once in two hours during the day time, and twice during the night.

After the cord has been tied and cut, the *after-birth* should be looked for; and if it has been thrown off, remove it from the bed into a chamber vessel. But if not already expelled, wait a few moments; and then if not thrown off, request the patient to *cough, and bear down*, while you make *gentle* traction upon the cord. These efforts will generally prove sufficient.

Should there be profuse *flowing*, either before or after the removal of the placenta, the nurse or attendant may place one hand in cold water for a moment, and then, with the same hand, grasp, and rather firmly compress the uterus, which may be detected at the lower part of the abdomen,

seeming like a large ball, about the size of a child's head. And, if at hand, half a drachm to a drachm of the *fluid extract of ergot* may be given at once. Soon after the expulsion of the placenta, the wet sheets, &c., may be removed from under the patient, and dry ones substituted. The "binder" should now be applied, and the patient covered over to prevent chilliness, and left to have an hour's rest, after which she may be made comfortable in bed. A dry, warm napkin should be placed to the vulva, and be frequently changed. After labor, a woman should keep her bed ten to fifteen days.

The *lochia* is the name given to the discharge that continues after labor is completed. For some days it retains the character of blood; but it finally loses its firmer proportions and red globules, and becomes of a greenish tint. It usually lasts three weeks, though sometimes longer. On the second or third day after confinement, the woman may take a dose of castor-oil, or a Rochelle powder, unless her bowels move spontaneously. Everything about the patient should be kept clean, and be frequently changed.

MISCARRIAGE. ABORTION.

When the fœtus is expelled before it is capable of maintaining an independent existence, — that is, before the *seventh month*, — it is called *abortion* or *miscarriage*. When the expulsion of the contents of the uterus takes place before the full term of pregnancy has expired, but after the seventh month, it is termed *premature labor*.

Causes. Mental emotions, fright, anger, joy, or sorrow, when excessive; intense pain, shocks, blows, falls, great fatigue, immoderate sexual indulgence, deficient nourishment, debilitating evacuations, acute and chronic disease; measles, scarlet fever, small pox, syphilis, &c. To these

we may add a peculiar constitutional irritability of some females, by which they abort *habitually*.

Symptoms. The patient who is about to miscarry, generally experiences a sense of uneasiness, languor, pain in the back, and lower part of the abdomen, accompanied by pains of an expulsive character, and often with flowing or hemorrhage. When the ovum itself is ruptured, there is a discharge of water from the vagina, greater or less, according to the age of the fœtus, followed afterwards by pain and discharge of blood. Sometimes the ovum is expelled with little or no pain; at others the pains are described as being more severe than those of labor at the full term.

Treatment. There are two points to be observed in the treatment of these accidents; *first*, if possible, to prevent the expulsion of the fœtus, and enable the woman to complete her pregnancy; *secondly*, where this is hopeless, to shorten the process as much as possible, and prevent further hemorrhage. As we cannot be certain in the first instance whether the child is dead or not, we must act under the supposition of its life, knowing that if the vital relation between the ovum and the uterus is compromised it will be discharged.

The *preventive treatment* will consist in rest, in a strictly horizontal posture, on a hard bed, lightly covered with clothes, and in a cool room; cold wet napkins to the vulva, light diet, abstinence from stimulants, and the administration of an opiate and astringent.

The following powders will generally prove as beneficial as anything: —

Take of Gallic Acid, ... 2 drachms.
Powdered Opium, ... 12 grains.

Mix, and divide into twelve powders. One may be taken in molasses or syrup, two or three times a day, for two to four days.

If these means fail, and the hemorrhage or flowing continues, whilst the ovum is not expelled, there is little or no chance of preventing miscarriage; and our endeavors must be directed to the suppression of the discharge, knowing it will generally cease as soon as the womb is emptied. The best agent to be used under these circumstances is the *tampon* or *plug*. By this the reader will understand that small square pieces of linen are to be crowded into the vagina until that cavity is entirely filled, the whole being retained by a T bandage. The *plug* should be allowed to remain from six to twelve, or even twenty-four hours, the patient being still in a horizontal position, and the bladder, if necessary, relieved by a catheter. When withdrawn, the ovum, or fragments of it, will generally be found adherent to its upper part, along with a coagulum.

It must be remembered, however, that the *tampon* should never be used if internal bleeding can take place to such an extent as to destroy life; in other words, not if the uterus be empty, and the patient far advanced in pregnancy. The *plug*, it will also be remembered, is not to be used under any circumstances where there is a hope of saving the pregnancy. If the ovum is not discharged with the tampon, and cannot be reached and hooked down with the finger, half a teaspoonful of *fluid extract* of ergot, given two or three times during the day, may cause its expulsion.

Women should observe the same rest and care after a miscarriage, as after a labor at the full term; if they do not, serious trouble may follow. When the abortion is *habitual*, and the uterus is irritable, an opiate injection may be administered every night, for a week or longer; consisting of forty-five drops of laudanum, in a wineglassful of warm starch-water. Rest, in the horizontal position, should also be observed until the inclination to abort has ceased.

PHLEGMASIA DOLENS. MILK LEG.

This affection is quite common after confinement, especially in women who have been much weakened by flooding, or other causes. It is supposed by some to depend upon the arrest, from some cause, of the circulation of the blood in the femoral vein.

Symptoms. It usually commences, in from one to five weeks after labor, with fever, headache, thirst, nausea, and pain; swelling, and loss of motor power of one of the lower extremities, — rarely both limbs are affected, — the swelling beginning at the upper part of the thigh, and gradually extending downwards. The limb is unnaturally hot, tender, not œdematous, but swollen sometimes to twice its natural size; it is of a pale-white color, and has a glazed or shining appearance. The acute stage generally lasts from fourteen to twenty-one days, but the limb often remains swollen and feeble, or almost useless for many weeks, or even months.

Treatment. This should consist of perfect rest, low diet, warm fomentations to the part, and laudanum or morphine to relieve pain. After the acute symptoms have subsided, alteratives, tonics, and a generous diet will be required. Blisters, stimulating liniments, and bandages to the limb, may also be useful.

CHAPTER XIII.

MANAGEMENT AND DISEASES OF INFANCY AND CHILDHOOD.

FOOD OF INFANTS.

THERE can be no doubt that milk, and milk alone, is the proper aliment for infants during the first few months after birth; and that, in all cases where it is possible, this nourishment should be afforded by the mother herself. As regards the time after delivery at which the child should be first presented to the breast, physicians differ; some thinking that ten or twelve hours should elapse, so that the mother may recover from her fatigue; others, that no time should be lost after the infant is dressed, and the mother made dry and comfortable. The latter is the plan which I adopt in my own practice; for, without considering whether such a proceeding is advantageous — it certainly is not injurious — to the infant, I am quite positive that it is of great benefit to the mother; inasmuch as the early sucking of the child not only gives a proper form to the nipple and facilitates the flow of milk, but the irritation of the breasts tends to cause contraction of the uterus, and thus to materially diminish the risk of secondary flowing.

Unfortunately, however, not every mother is capable of suckling her infant; and the question arises, How are we to tell when such is the case? The chief conditions which disqualify a mother for the office of nurse are, an extremely sensitive and excitable temperament, severe constitutional deterioration from any cause, a strong predisposition, either

hereditary or acquired, to scrofula, consumption, cancer, syphilis, epilepsy, or insanity, and the existence of any severe disease, as puerperal mania, puerperal fever, &c. In addition to these circumstances, the mother may be prevented from fulfilling her duties, owing to the secretion of milk being so scanty as to be almost useless; or the secretion may be abundant, but it may be poor and watery, and deficient in milk globules; or, lastly, the nipples may be so flattened and buried in the breasts, that they cannot be laid hold of.

Supposing, then, that the mother is rendered incapable, from any of these causes, of performing the duty which naturally devolves upon her, the infant must either be reared by a wet-nurse, or be "brought up by hand." The principal requisites for a good wet-nurse are, that she be between twenty and thirty years of age; of active and temperate habits; of a robust and healthy constitution; of a quiet, patient, cheerful disposition; exempt from any scrofulous or syphilitic taint; complexion fresh and clear, and skin free from eruptions; gums red and firm, teeth sound, tongue clean, and breath sweet; breasts firm and well-formed, with well-developed nipples; milk abundant, rather thin, of a bluish-white color, sweet, and throwing up plenty of cream when allowed to stand; and lastly, it will be well if the date of her labor does not differ materially from that of the parent whose place she is to fill. In order to keep the wet-nurse in good health, she must live regularly on simple, nourishing, and digestible food, and much in the way she has been accustomed to; she must be scrupulously attentive to cleanliness, and she should daily take moderate exercise in the open air.

In cases where the mother is unable to nourish the infant, and a wet-nurse cannot be procured, our only resource is to rear the child by careful artificial feeding. The food usually resorted to is the milk of the cow, as it is less expensive and more readily procured than the milk of any other ani-

mal. It differs from human milk in containing less of the oleaginous and saccharine principles, but more of the albuminous; hence it should be slightly sweetened with white sugar, and diluted with one third part of plain water. It should be about blood warm, and administered by means of a feeding bottle, having a nipple formed of vulcanized rubber, or of a calf's teat.

Whether the infant be reared by the mother, or by a wet-nurse, or by artificial feeding, it should be kept entirely, if possible, to the food first chosen, until after the seventh or eighth month, when the teeth begin to appear. It should also be regularly nursed or fed, during the first two or three weeks of life, about every two hours through the day, and every three or four hours during the night; the intervals being gradually increased until they reach three or four hours in the day, and six or eight at night. Thus the nurse will be refreshed, and her patience and moral strength recruited, by some hours of uninterrupted sleep; which is with difficulty obtained by those who have once got into the habit of offering the child the breast whenever it cries, or shows any appearance of uneasiness.

As regards the quantity of milk which the infant requires each time it is nursed, it can only be roughly stated that it varies from two to six or seven ounces; less than the former being insufficient for the purposes of nutrition, while more than the latter will probably induce vomiting.

WEANING.

The proper time for weaning healthy children is when they are about one year old, when nature — by providing teeth, and increasing the development and muscularity of the stomach — indicates that a more solid diet is required. The change, however, is not to be made abruptly; and hence, when the first teeth begin to appear, at the end of the

seventh or eighth month, a little supplementary food may be very gradually allowed, — such as pure, undiluted cow's milk, thin arrowroot, well-boiled gruel, or beef tea, — while, at the same time, the quantity of nourishment derived from the mother is slowly diminished. The infant will thus daily become reconciled to the almost imperceptible alteration in its diet; while the mother's lacteal secretion will by degrees diminish, as the demand for it lessens, until it ceases entirely by the time the child is one year old. There are, of course, some cases of delicate children where weaning may be well delayed for two, three, or four months after the proper time, provided the mother's health continues perfect; but if the latter begins to fail, or the supply of milk to diminish, nursing must be abandoned.

For some time after weaning, the principal nourishment should consist of semi-fluid substances; for it must be remembered that the digestive organs are still weak, and that the stomach is easily oppressed and disordered. Of the various kinds of food in daily use, the best are arrowroot, made with milk and water; thin gruel, made from groats or prepared barley, strained and sweetened; or sago, thoroughly boiled in weak beef tea, with the addition of a little milk.

As the child grows older and cuts all its first teeth, the diet must be further extended; and bread and milk, nourishing broths, light puddings, eggs lightly boiled, well-cooked vegetables, and white fish, and fresh animal food — especially chicken or mutton — may be judiciously allowed. Fresh, ripe fruit, in moderation, should be given; plain, light pastry, simple cakes, and biscuits seldom do any harm; while the child's notorious love of sugar may be judiciously indulged, unless flatulence or acidity arise. But candy, colored with poisonous substances, must be avoided. As a general rule, too, tea and coffee, wine and beer, should be interdicted; milk, or sweetened milk and water, and pure spring water, being much more wholesome.

CLEANLINESS AND CLOTHING.

Cleanliness is of the utmost importance to health at every period of life, but especially so during infancy and childhood; for if the manifold and important functions of the skin be then imperfectly performed, general constitutional disturbance quickly ensues. Hence every care must be taken, by frequent and thorough washings, gentle rubbing, and clean, soft clothing, to maintain the healthy action of the skin.

The safest and most convenient way of washing the *infant* is to immerse its body in a tub or basin of warm water, while the head is supported by the hand and arm of the nurse; at the same time, the whole surface of the body — especially about the scalp, joints, and folds of the skin — is to be well rubbed with a soft sponge, with or without castile soap, so as to remove all offensive matters. Children, when they enter the world, are sometimes covered with a lardy substance, requiring a little sweet oil to be rubbed upon the part, to soften it, before it can be easily washed off. After having been in the water for a few minutes, the child is to be taken out, quickly and thoroughly dried, and to have well-aired clothing at once put on. This bath must be used daily, the best time for it being in the morning, as soon as the infant is taken out of its bed to be dressed for the day. The water should be comfortably warm. The practice of using cold water for young infants is quite indefensible, as it is well known to have given rise to serious ill effects. During the first few days of life, care must be taken not to disturb the remains of the umbilical cord during washing. In ordinary cases it dries up and falls off between the fifth and seventh days, leaving a small ulceration at the navel, which quickly heals.

Another important element of cleanliness during infancy, is the speedy removal of all the damp and soiled clothing,

which results from the frequent and involuntary discharges from the bladder and bowels. At the same time also the nates and groins are to be well washed with warm water, gently dried, and lightly dusted with finely-powdered starch, or oxide of zinc. The clothing of infants and children — let physicians say what they may — will always be modified by fashion and the various caprices of parents; but so long as it is loose, simple, scrupulously clean, warm, soft, capable of being fastened without the use of pins, and not too heavy, we need not be very particular as to its shape. The long flowing clothes, in which infants are generally dressed for the first five or six months, seem at first sight rather absurd; but without doing any harm, they certainly protect the legs and feet, and lower parts of the body, from cold air and draughts.

With regard to the material, some allowance must be made for the season of the year; but I think that, as a rule, flannel is preferable to any other. In all cases the night-clothes are to be looser and less warm than those of the day; moreover, every article should be changed before putting the infant to rest in the evening. A cap is seldom required, especially indoors; but if one is worn, it should be thin and light. The maxim which says, "Keep the head cool and the feet warm," should be borne in mind.

As children grow older, it is often thought necessary to strengthen or harden them, by exposing them unnecessarily to cold, and putting them into very short, thin clothes, with light drawers, bare necks and arms, &c. This is a great mistake, however, as all must acknowledge who remember that the power of resisting cold in early life is very feeble. Hence, we should always see that the dress be warm, large enough, and long enough to clothe the whole person, including the chest, neck, upper and lower extremities; and sufficiently loose to allow of perfect freedom of motion. There are some robust children, whose constitutional powers will enable them to bear up against the hard-

ening system, with all its cruelty; but such are not to be brought forward in favor of its beneficial effects. They have grown up healthy in spite of the treatment, not in consequence of it. The hardening treatment proves fatal to thousands yearly.

EXERCISE AND SLEEP.

Before the fifth month few infants acquire sufficient strength to support the back in an upright position, so that, until then, they should be carried about in a reclining posture on the nurse's arm, in such a way as to afford entire support to the body and head. At this period their bones and limbs are very delicate, so that they must not be shaken about roughly, nor tossed in the air, nor rocked too violently. As they grow older they begin to make efforts to raise themselves; and seem to experience satisfaction from being occasionally placed in a sitting position, or from being laid on a bed, or on the ground, and allowed to roll and kick about at their pleasure. These movements not only afford amusement, but they act very beneficially by calling the numerous muscles of the body into action, and so increasing their strength and bulk. Towards the end of the ninth or tenth month most infants may be taught to crawl or "creep" about on their hands and feet; and a few months later, unless very feeble, attempts may be made to teach them to walk, by supporting them under the arms, guarding them against falls, and encouraging them to move from one chair to another. They should not, however, at this period, be kept too much or too long on their feet at one time, as thereby "bow-legs" may be induced. We need not wait, however, for infants to be able to walk before exposing them to the wholesome and invigorating influence of the open air; for, after the first three or four weeks, their health will be much improved by their being carried out daily, for one or two hours, when

the weather is favorable. The fresh air will be as beneficial to the nurse as to the child, and both should go out as much as the weather and season will permit. When the child has fully acquired the power of walking alone, he should be allowed the most perfect freedom of exercise, especially in the open air during the middle of the day. I need hardly say that in the winter and spring months precautions will be necessary to avoid "colds;" but, if undue exposure to bad weather be guarded against, if the nurse walk quickly, and if the children are suitably clad in warm, well-made clothing, there will be but little risk. At a later period, active games in the field, by exercising the limbs and exposing the body to the invigorating influence of solar light, promote the growth and regular development of the whole frame, and parents should provide opportunity for such amusements, by furnishing proper toys — as balls, hoops, kites, &c.

With respect to the quantity of exercise to be allowed, no general rule can be laid down, other than that the dictates of nature should be followed; and that when fatigue is experienced, rest should be allowed. Young infants require a great deal of repose — the first few weeks after birth being passed almost entirely in sleep, with the exception of the time occupied in satisfying the instinctive calls for food. As they gradually grow older, however, and as the strength increases, the periods of wakefulness grow longer; although it must always be remembered that throughout the whole period of childhood more sleep is required than in adult age. To permit of this, children should be put to bed early in the evening, so that they may enjoy a deep slumber for ten or twelve hours; while, until they are three to five years old, they must be allowed to recruit their strength by reposing for an hour or two in the middle of the day, before or after dinner. In awaking a child, care should be taken to do so gradually and gently, otherwise much injurious excitement may be produced.

A young infant requires a warm, soft couch for its repose, with sufficient covering to protect it from the least impression of cold. During the first few weeks, it may be advantageous for it to sleep in the same bed with its mother, especially if the weather be cold; but after this time, a cradle or cot should be used. Nothing is more distressing to an anxious mother, or more annoying to an impatient nurse, than sleeplessness in her infant charge; and the temptation is great to fall into the baneful habit of resorting to laudanum, paregoric, soothing syrups, and quack cordials, to force sleep. In the majority of cases we may be certain that when a healthy infant does not sleep, either its clothing is uncomfortable, or it is cold, or a pain from some removable cause, — as the point of a pin being in contact with its body, — or it has been over-fed, or fed on some improper food. If the removal of the cause does not suffice to induce sleep, a warm bath, of a few minutes' duration, will never fail to soothe, and will generally cause the child to sleep.

DENTITION OR TEETHING.

When a child is about seven months old, the two central temporary teeth of the lower jaw make their appearance through the gum; being followed, in a week or two, by the corresponding teeth of the upper jaw. These are the central incisors. In a month or six weeks after the eruption of the central incisors, we may expect the lateral incisors to make their appearance; those of the upper jaw being evolved first. About the twelfth or fourteenth month, the anterior, or front molar or double teeth, of the under jaw are cut, and shortly afterwards those of the upper jaw. The cuspids (eye and stomach teeth) appear between the sixteenth and twentieth, and between the twentieth and thirtieth the second milk molars pass through the gum. Thus, according to this statement, the twenty milk teeth are com-

plete by the thirtieth month. From this it will be seen that the temporary, deciduous or milk teeth, are twenty in number, — four incisors, two cuspids, and four molars in each jaw: and that they are not all cut until the end of the thirtieth month, or even later, the whole period during which they are being gradually evolved being known as that of the *first dentition.*

ERUPTION OF PERMANENT TEETH.

After the completion of the first dentition, at the end of the thirtieth month, there seems to be a pause, until between the sixth and seventh years, when, as stronger organs of mastication are needed, the second or permanent teeth begin to make their appearance. The periods of eruption of the second set of teeth, though liable to some variation, are about as follows: The anterior true molars at six and a half years of age; the central and lateral incisors at eight; the anterior and posterior bicuspids at nine and ten; the cuspids ("eye and stomach teeth") from eleven to twelve; the second true molars from twelve to thirteen, and the molars, or "wisdom teeth," from seventeen to twenty. The teeth of the lower jaw generally appear earlier, by four or six weeks, than those of the upper. Any irregularity in the time of appearance of the permanent teeth need give rise to no anxiety.

Thus we see that when the permanent teeth are all developed, there are sixteen in each jaw, viz., four incisors, two cuspids, four bicuspids, and six molars.

DISORDERS OF THE FIRST DENTITION.

Perfectly healthy infants, in whom the powers of life are energetic, may cut their teeth without any perceptible disorder; but in the majority of cases there is not only some

local irritation, but a greater or less amount of general disturbance. The following is the usual course: Before the tooth appears through the gum, the latter is found hot and swollen; there is an increased flow of saliva; the cheeks frequently become flushed; the child is restless, capricious, and fretful, and constantly thrusting its fingers, or any hard substance it can obtain, into the mouth, in order to allay the excitement and irritation of the gums; the sleep at night is broken and disturbed; the appetite fails; and there are symptoms of intestinal disturbance, as evidenced by attacks of vomiting and diarrhœa. In more unfavorable cases, the general disturbance is greater; the restlessness being extreme, the skin hot and dry, the mouth parched, and often covered with aphthæ, or canker; the tongue foul, and the appetite very bad; so that the child either refuses the breast, or takes it only for a minute or two at a time, and at irregular intervals. Unfortunately, too, the process may become complicated by the occurrence of some important sympathetic affection, or of some independent disease. It can readily be imagined that, in the excited condition of the system arising from teething, acute or chronic inflammation may attack any organ in the body; and such is really the case, inflammatory diseases of the brain and nervous system, and of the organs of respiration, being by no means uncommon. Severe bowel complaints are also, at this time, rife; diseases of the skin are not unfrequent; and spasmodic affections — varying from mere twitchings of the muscles, or sudden startings during sleep, to severe epileptic convulsions — often justly give rise to great alarm in the minds of the parents.

Any local obstacle to the progress of dental development, such as may arise from induration, or from inflammation of the gums, or from any disproportion between the size of the jaws and the form and number of the teeth, greatly augments the constitutional disturbance. Occasionally, in debilitated subjects, the summit of the gum over a tooth, or the

edge of a gum when partly pierced by a tooth, becomes the seat of very painful inflammation and ulceration. The pain of this inflammation is sometimes so severe, and tends so strongly to augment the fever and general disturbance, that the child's life may be endangered, and even lost, without the most judicious treatment.

With respect to the eruptions upon the skin connected with teething, it need only be mentioned, that they often seem to give relief rather than to do harm, and hence they need not be treated too actively. When the process of teething goes on favorably, medical interference will be unnecessary. The child should be much in the open air, provided the weather is favorable; sponging the head daily with cold water will be found beneficial; caps and warm coverings to the head should be forbidden, as they only tend to favor the determination of blood to the brain and its membranes; the gums should be frequently rubbed with the finger, to lessen the irritation; the diet should be simple, and the bowels should be kept regular.

When the dentition is difficult, the treatment becomes more important. There are two indications to be followed: first, to relieve the local irritation; and second, to subdue the constitutional disturbance. If, on examining the mouth, the gum is found hot, red, tender, swollen, and indurated, it is to be freely lanced; taking care to divide the tissues down to the surface of the pressing tooth, even if this be at some little depth. When this operation is properly performed, immediate relief often follows; but should the general disturbance persist, mild laxatives must be resorted to, and if there is much fever, the following mixture may be given: —

Take of Spirit of Mindererus, . . . 1 ounce,
Syrup of Gum Arabic, . . . 1 ounce.

Mix. Give a teaspoonful three or four times a day. If the child is restless and irritable, five to ten drops of pare-

goric may be added to each dose. When there is much thirst, allow the child to drink freely of cold water. Where there are symptoms of determination of blood to the brain, employ warm baths, with cold applications to the head. Where symptoms of debility predominate, strengthening medicines do great good; and in all cases take care to keep the bowels in a healthy condition, resorting to mild aperients, as castor-oil, or aromatic syrup of rhubarb, if constipation exist; or to an astringent (R. 73), if the infant is being weakened by diarrhœa.

DISORDERS OF THE SECOND DENTITION.

The eruption of the permanent teeth does not usually give rise to any distress; although instances occasionally occur where there is not only much local irritation, as evidenced by great pain in the gums and enlargement of the parotid and sub-maxillary glands, but also where serious general disturbance ensues, as shown by the occurrence of epilepsy, severe inflammation of the eyes, skin diseases, &c. Whenever the gum — whether indurated or not — seems to oppose the passage of the tooth; or when the superimposed gum is tense, shining, and tender; or when it is swollen and congested, and is attended with salivation and heat of mouth, then the lancet will give great, and almost immediate relief.

CONVULSIONS.

From the time of birth until the end of the fifth or sixth year, convulsions are of rather frequent occurrence, inasmuch as they are produced by a variety of circumstances; but they are most common during infancy, since this is not only the most excitable period of existence, but it is also exposed to its own peculiar sources of irritation. The at-

tacks very commonly — when not symptomatic of severe cerebral disease — pass off without any bad results; but when they recur frequently, they are very likely to weaken the intellect, and to impair the general health; and in some instances they prove the immediate cause of death.

A few days after birth the young child is apt to suffer from slight convulsive movements, to which nurses give the name of "*inward fits.*" The baby lies as though asleep, rolls its eyes about, moans gently, breathes with a little difficulty, and has twitchings of the muscles of the face; sometimes there is a livid ring round the mouth. This condition arises from indigestion, and is readily relieved by gentle friction or rubbing over the abdomen, and the administration of the following mixture: —

Take of Aromatic Spirit of Ammonia,	½ drachm.
Compound Spirit of Ether, .	½ drachm.
Syrup of Gum Arabic, . .	15 drachms.

Mix. Shake before using. Half a teaspoonful to a teaspoonful, with the same quantity of water, may be given, and the dose repeated in an hour or two if necessary.

Symptoms of Convulsions. In slight cases the symptoms are nearly such as have just been described as inward fits; but generally they are much more severe. Thus, when an attack comes on, the body becomes stiff and immovable; the muscles of the face twitch, and the lips are drawn in all directions; the integuments of the head and face become red and then livid; the eyes start, the pupils are contracted or dilated, and insensible to light; the breathing is irregular and laborious; the pulse is very frequent and small; the hands are generally firmly clinched, and the thumbs turned inwards; and the contents of the bladder and rectum are voided involuntarily. At the end of one or more minutes the convulsions diminish for a few moments; when they either recur or altogether cease. In the latter case, the limbs and features become relaxed, and the natural appear-

ance returns; the child looks frightened and cries, and then either falls into a sound sleep, during which it becomes bathed with perspiration, or — in unfavorable cases — sinks into a state of complete coma, and perhaps dies.

Causes. Anything which over-excites the nervous system, or which interferes with the due performance of the functions of the nervous centres, is likely to induce a fit of convulsions. Hence the fits may arise from structural disease of the brain, as tubercle, inflammation, apoplexy, &c.; from an insufficient supply of blood to the brain, as in weak, badly-nourished children; from a supply of impure blood, as is seen sometimes during the course of the eruptive fevers, or in the progress of kidney disease; from distant irritation affecting the brain, such as arises from the pressure of a tooth upon the inflamed gum during teething, or from intestinal worms, or even simple indigestion; from general irritation produced by exposure to a cold and damp atmosphere; and, lastly, they may be produced by fright, and by causes which we cannot discover.

Treatment. This will, of course, vary according to the circumstances of each case; but the broad principles of treatment are as follows: During the fit, it will be advisable to avoid all unnecessary interference; it being generally sufficient to loosen the clothing about the neck, chest, and waist, to raise the head, to sprinkle the face with water, and to admit plenty of fresh air. Subsequently the warm bath may be of signal service, cold being at the same time applied to the head. When the bowels are confined, gentle purgatives will be needed; when there is much wind in the bowels, carminatives (R. 51 or 52). When the stomach contains undigested food, an emetic (R. 2); when the irritation is due to teething, and the tense gum appears to offer an obstacle to the passage of the tooth, lancing the gum; when there is restlessness, a sedative (R. 50); and when the blood is poor, tonics (R. 62 or 68).

CHOLERA INFANTUM. INFANTILE DIARRHŒA.

(*The Summer Complaint of Infants.*)

The term *cholera infantum*, as commonly used in this country, embraces different pathological conditions, in fact, distinct affections, occurring in children under two years of age. These different conditions, however, may be developed at different periods in the same case. In certain cases, the symptoms closely resemble those of the *cholera morbus* of adults. A child is seized with vomiting and purging, the latter usually occurring first; the acts of vomiting and purging are violent and frequently repeated; after the contents of the stomach and bowels are expelled, the evacuations consist of secreted transuded liquid in more or less abundance. The attack may cease or be arrested, and recovery speedily ensue, as in cases of the cholera morbus of adults; but this favorable course does not obtain so generally in children as in adults. If the course be unfavorable, the vomiting and purging continue in spite of efforts to check them; the child is tormented with thirst, but everything is rejected from the stomach; great prostration ensues; and death takes places in one, two, three, or four days. The fatal result may be preceded by convulsions and preternatural propensity to sleep. In some cases the violent symptoms cease, and the attack eventuates in a chronic affection, accompanied by diarrhœa and occasional vomiting. In other cases the affection is gastro-intestinal indigestion. These cases are characterized by diarrhœa, the evacuations at the commencement consisting of healthy feces, and then of loose, copious, bright-yellow stools. If the looseness continues, the motions assume a green, spinach-like appearance; and frequently they contain numerous white specks, consisting of the casein of undigested milk. Vomiting occasionally occurs, but in some cases it may not appear at all. The diarrhœa is more or less persisting;

the appetite is impaired or lost; colic pains are apt to become troublesome; the child progressively wastes, and death may take place from inanition. In another class of cases the affection is inflammation of some portion of the intestinal canal. The discharges in these cases contain gelatinous or slimy mucus, which is occasionally tinged with blood. Some fever, with remissions, occurs in these cases. There is more or less abdominal tenderness and pain. Vomiting may be prominent, as a symptom, or occur only occasionally. Progressive emaciation and weakness mark the unfavorable progress of this affection. Head symptoms are often developed in its course. The child becomes dull, and inclined to sleep; lies with the eyelids partially closed, and frequently rolling the head from side to side. Convulsions and coma may occur before death. Under the head of cholera infantum, then, are commonly embraced cases of *cholera morbus*, *diarrhœa from indigestion*, *inflammation of the intestines*, and *dysentery*. The head symptoms, which are apt to be developed in unfavorable cases of each of these affections in the young child, were formerly attributed to inflammation of the membranes of the brain. They were supposed to denote a metastasis (change in the seat of the disease) to the head. It is not easy to say exactly what the morbid condition is, but it is not inflammation, and it is dependent upon the exhaustion produced by the abdominal disease.

The affections embraced under the name cholera infantum, although not peculiar to America, doubtless prevail to a much greater extent in certain parts of this country than in Europe, owing, probably, in a great measure, to the heat in the summer months being greater here than abroad.

Causes. The causation has relation to elevation of temperature — to excessive heat; the affections prevail almost exclusively during the months of July, August, and September. But something more than temperature is concerned in their production, for they are almost limited to cities and

large towns, and are more prevalent in the Northern and Middle than in the Southern States. Children of the poorer classes, in insalubrious situations, living in crowded dwellings, are more liable to be affected; but the children of those in easy circumstances, and of the wealthy, by no means escape. The irritation of teething, and the change of diet after weaning, doubtless render the system more liable to be affected. Infants brought up by hand are especially subject to these affections. The diet of the child, after weaning, has much to do, if not with the causation of these affections, at least with the ability of the system to resist and overcome them. Restriction to insufficient articles of nourishment, such as arrowroot and gelatine, is one source of feebleness, and want of development and growth in ininfancy; but there is reason to believe that infant mortality in cities is attributable, in no small measure, to the use of diluted, sophisticated, and artificial milk. The importance of undiluted milk, from a pure source, to the welfare of children, is far from being generally appreciated As the diet of infants must consist chiefly of milk, its purity is of the utmost importance.

Treatment. The treatment, in the first place, will have reference to the form of cholera infantum which is presented. In the acute form, resembling the cholera morbus of adults, in which there is a liability to a rapidly fatal termination by exhaustion from loss of fluids, the patient falling into a state of collapse, the indications are to arrest the vomiting and purging, to restore warmth to the surface by the application of dry, warm flannels, mustard-water, and the warm bath, and to sustain the powers of the system by wine or brandy, and proper nourishment. To arrest the vomiting, place a mustard poultice over the stomach, and give, according to the age of child, from five to fifteen grains of the subcarbonate of bismuth in a little syrup. Repeat the dose once in two or three hours, if necessary. At the same time, three to six drops of laudanum mixed

with a tablespoonful or two of thin, warm starch may be injected into the bowels, and the injection may be repeated two or three times a day, if required. As children do not bear opium, or its preparations, well, begin with only three drops of laudanum, if the child be under one year, and watch its operation. Should the child be much prostrated by the disease, five to thirty drops of brandy may be given in a little water, every one, two, or three hours, according to the urgency of the case.

Should not the subcarbonate of bismuth and laudanum arrest the vomiting and purging within a few hours, try the following powders as a substitute: —

Take of Hydrargyrum cum Creta, . . 4 grains.
Dover's Powder, . . . 4 grains.

Mix, and divide into six powders. One may be given in a little syrup, every second or third hour, to a child six months to one year old. Warm baths generally prove serviceable.

After the vomiting has ceased, if the diarrhœa still continues, the following mixture will usually prove beneficial: —

Take of Fluid Extract of Spirea, . . ½ ounce.
Brandy, ... ½ ounce.
Syrup of Gum Arabic, . . 1 ounce.

Mix. Give from half a teaspoonful to a teaspoonful, according to age of child, every two, three, or four hours. One or two drops of laudanum may be added to each dose in obstinate cases.

Attention to diet and regimen is of prime importance. Many children undoubtedly die with these affections from an insufficiency of nutriment. Pure milk is the most appropriate article of food. It may be rendered more nutritious by the addition of boiled flour or powdered biscuit. Gelatine and arrowroot, or other starchy substances, are in-

adequately nutritious. The essence of meat and strong broths are often taken with avidity by very young children, and the desire for them should be indulged and encouraged.

Milk, to which a little lime-water has been added (one part lime-water to seven of milk), when given in small quantity at a time, will often be retained on the stomach, when other articles of nutriment are rejected.

In that form of this disease arising from indigestion, pepsin (R. 64) often proves serviceable, after the discharges have been regulated.

When we have inflammation of the intestines, and the discharges are slimy and streaked with blood, the laudanum and starch injections, before recommended, often prove very beneficial. Hot fomentations to the bowels also do great good. In all these cases, the child should be allowed to remain as quiet as possible. The habit, in acute cases, of tossing the child about, rocking it on knee or in cradle, or of carrying it about much, proves injurious, by keeping the bowels in constant motion.

The summer complaint of infants, from whatever cause arising, requires careful management. No two cases are precisely alike. In obstinate or *chronic* cases, removal from the city, either to a situation on the seaboard, or to some point inland, is the most efficient of all curative measures. The child should be in the open air as much as possible.

In these cases, in conjunction with diet, alcoholic stimulants are highly useful. A few drops of brandy or whiskey may be given, at short intervals, with advantage. The elixir of pepsin, before mentioned, proves beneficial in nearly all chronic cases.

The head symptoms, previously referred to, claim sustaining measures — brandy and nourishment. Patients sometimes recover, after lingering for a long time on the verge of the grave.

This being a very serious affection, always place the child under the care of a physician, when convenient.

INFANTILE FEVER.

Simple or remittent fever in children occurs in two degrees — in a mild and in a severe form. In the *mild* form the disease comes on gradually; the child first loses its cheerfulness, its appetite fails, and it suffers from urgent thirst; during the day it is listless and fretful; and though drowsy towards evening, yet its nights are restless, and it has no sound, refreshing sleep. On these symptoms attracting attention, the skin is found hot, and at some hours of the day dry; at others covered with perspiration; the bowels are generally loose, the evacuations being unhealthy and offensive; sometimes there is obstinate constipation. In the second week the symptoms increase; the child passes very bad nights, screams and starts in its sleep, suffers much from thirst, and occasionally has slight delirium; there is increase of the fever towards evening, which diminishes as the morning approaches; occasionally there is a second, though less severe, increase about eleven o'clock in the forenoon. In mild cases there is seldom any rash; if any appear, it will be at this time. The skin of the lips, face, and fingers becomes dry and rough, and the child is constantly picking it. Towards the end of the second or the beginning of the third week the symptoms usually begin to abate, and day by day the child improves in health, although some time often elapses before convalescence is completely established. In severe cases, the symptoms just enumerated commence more suddenly, and are more strongly marked; there is frequent and scanty eruption, which appears between the sixth and tenth days. As the disease progresses, the restlessness and delirium become gradually aggravated; the evacuations are passed unconsciously, and the child becomes much emaciated; until, when apparently in the worst possible condition, slight signs of amendment show themselves, followed by daily improvement. The cases which terminate fatally are few in number.

Treatment. This fever has a natural course to run; and our object must be, as in the treatment of fever in the adult, to enable our patient to bear up against the disease. At first, medicine is little needed; but when the skin is hot and dry, and pulse rapid, the following mixture may be given with benefit: —

Take of	Liquid Acetate of Ammonia,	1 ounce.
	Sweet Spirit of Nitre,	2 drachms.
	Syrup of Gum Arabic,	6 drachms.

Mix. From half a teaspoonful to a teaspoonful, according to the age of the child, may be given in a little cool water every third or fourth hour. Plain water or toast-water may be allowed rather freely as a drink. Sponging the whole body with warm water (containing a little saleratus) every morning will prove beneficial. The unhealthy diarrhœa will be best relieved by giving a dose of castor-oil, and after its operation, the following powders: —

Take of	Hydrargyrum cum Creta,	4 grains.
	Dover's Powder,	2 grains.

Mix, and divide into three powders. One may be given in a little molasses or syrup every third hour, until all are taken.

When the child is very weak, good beef tea, chicken broth, and a little wine or brandy will be required. During convalescence, milk, beef tea, &c., will be necessary. Change of air, if in an unhealthy locality, will prove of great advantage.

To procure sleep during this fever, five to fifteen drops of paregoric, or one half to two grains of Dover's powder, according to the age of the child, may be given at bedtime, when necessary.

INCONTINENCE OF URINE.

Incontinence of urine may occur in early life from many causes. It may be associated with a tendency to kidney disease, or with a disposition to gravel, or it may depend upon constitutional weakness and irritability, or it may be due to an increase of uric acid in the urine.

The troublesome involuntary flow of urine during sleep, which is so common in young children, may result from any of the causes of incontinence; hence in all cases of the kind, the urine should be examined by a competent physician, who should always be consulted in regard to these cases when obstinate.

Treatment. By seeing that the little patient passes water immediately before going to bed; by waking him to empty his bladder two or three times during the night, the wetting of the bed may, in some cases, be prevented.

Tone and strength may be given to the system by the administration of the following preparation of iron: —

Take of Tincture of Chloride of Iron, . 1 drachm.
Pure Water, ... 4 ounces.

Mix. A child three to four years old may take from half a teaspoonful to a teaspoonful, in a little water, three times a day. A child six to eight years of age may take from one to two teaspoonfuls. Where the bladder is very irritable, a belladonna plaster over the lower part of the back will often do much good; or three to five grains of the extract of this drug may be rubbed into the same region every night.

CHAPTER XIV.

ON SUSPENDED ANIMATION, POISONING, &c.

SUSPENDED ANIMATION FROM DROWNING.

The patient should be treated *instantly on the spot*, in the *open air*, the face, neck, and chest being freely exposed to the breeze, except in severe weather.

In order to *clear the throat*, place the patient gently on the face, with one wrist under the forehead, that all fluid, and the tongue itself, may fall forward, and leave the entrance into the windpipe free.

To excite respiration or breathing, turn the patient slightly on his side, and apply some stimulating agent to the nostrils, as ammonia or hartshorn; also rub the face a little to make it warm; then dash a little cold water upon it. If these efforts do not prove successful, *lose no time*, but proceed to *initiate respiration or breathing*, by placing the patient on his face, and then turning the body gently but completely *on the side, and a litttle beyond;* then again on the face, and so on alternately. Repeat these movements deliberately and perseveringly, *fifteen times only* in a minute.

When the patient is rolled so that his face is downward, the chest (thorax) is *compressed* by the weight of the body, and air is forced out. When he is rolled back on the side, this pressure is removed, and a fresh portion of air rushes in. As often as the patient is rolled on to his chest (face downwards), make a uniform and efficient pressure *along the*

back, removing the pressure immediately, before turning on the side. The pressure along the back aids in expelling air from the chest; as soon as the pressure is removed, and the patient rolled upon the side, a fresh supply rushes in to fill its place, and in this way natural breathing is imitated. The patient's limbs may at the same time be *rubbed upward* with *firm pressure*, and with *energy;* the object of the rubbing being to obtain the return of venous blood to the heart.

Substitute for the patient's wet clothing such other garments and covering as can be *instantly* procured, each bystander, if necessary, furnishing a coat, cloak, or some other article.

Slapping the body occasionally and *briskly* with the hand tends to excite inspiration. The body should be rubbed smartly until dry and warm; then cold water dashed upon it, and the rubbing be repeated.

Avoid, if possible, the immediate removal of the patient, as it involves a *dangerous loss of time.*

The old methods of rolling the body of a drowned person on a barrel, holding it up by the heels, blowing into the windpipe with bellows, and all rough treatment, should be avoided, as full of danger.

Injecting into the bowels warm brandy and water, and rubbing the surface of the body with warm spirit, may prove beneficial. Should the accident occur in winter, and the body feel cold, as if frozen, before applying warmth, rub it well with snow, or very cold water. Above all things, remember that *perseverance for many hours* in the use of the remedies pointed out may give you the unspeakable pleasure of restoring a fellow-being to life.

When the patient begins to revive, a little warm spirit and water may be given from time to time, and he should be allowed to remain at rest until he feels inclined to rise.

When a person has been taken from the water, and efforts are being made to resuscitate him, a crowd of persons will soon collect, if near a town, and, by their presence in the

room, or around the patient, if in the open air, do much harm by rendering the air impure, and interfering, perhaps, with the operations of those who have charge of the patient; therefore, *never allow any more to be about the patient than can in some way be made useful.*

FROM HANGING.

When a person is found suspended by the neck, he should be *immediately taken down*, and the cord, or other article constricting the neck, *loosened, and removed at once.* Then attempt to resuscitate in the same manner as directed in cases of drowning.

FROM GAS, FOUL OR IMPURE AIR.

Throw open the doors and windows, or take the patient into another room, or the open air, which is preferable; then treat as directed in cases of drowning.

FROM COLD.

Place the body in a cool room, away from fire, and rub it well and briskly with snow, or, if this cannot be obtained, cold water. After a while frictions, with flannels and warm spirit, may be used; but warmth should be *very gradually applied.*

Natural breathing may be initiated as directed in cases of drowning, and when the patient begins to revive, warm spirit may be given in small quantities.

If a limb is frostbitten, the cold applications should be continued longer, and warmth be more gradually applied than when the whole body is frozen.

Care should be taken to handle the parts carefully, so as not to break off an ear, or tip of the nose.

BOAT ACCIDENTS.

If upset in a boat, or in any other way precipitated into the water, without being able to swim, draw in the breath,

keep your mouth as well shut as possible, and do not throw your arms about; endeavor to hold your head up, yield yourself to the buoyant powers of the water, and stretch out your hands, but only below, not *above*, the surface. Remember, that the *less* you expose above the surface, the better are you buoyed up. Many persons are drowned merely from struggling and throwing up their hands.

CLOTHES CATCHING FIRE.

The moment that you see your clothes on fire, remain calm and collected; do not, on any account, run away in fright. If there be a rug, table cover, sheet, quilt, or anything of the kind at hand, roll it tightly about you to smother or extinguish the flames. The free application of water should be made as soon as possible.

SEA-SICKNESS.

This affection consists of nausea and vomiting, occurring to persons upon their going to sea. It is a troublesome and distressing affection, and varies in respect to severity and duration in different individuals.

Treatment. Perfect rest in the recumbent position, exposure of the body to the cool, fresh air on deck, instead of going into the cabin or between the decks.

Twenty-five or thirty drops of laudanum in a small glass of sherry wine or brandy will often relieve the sickness. If immediately vomited, repeat the dose.

From half a drachm to a drachm of *sulphuric ether*, with a little spirit and water, often proves serviceable. In some cases the *compound spirit of ether* (Hoffman's Anodyne), in half drachm to drachm doses, gives great relief.

Chloroform, in doses of thirty to sixty drops, taken in a little gum arabic water, is said to be excellent.

POISONING.

Cases of Poisoning, accidental and otherwise, are so common, and so sudden and terrible, that it is important for every person to have some knowledge of what should be done in such instances.

Our chief reliance in these cases is upon free vomiting, induced by those articles which are most speedy in their effect.

FROM OPIUM, LAUDANUM, OR MORPHINE.

Stir up, in a cupful of warm water, one or two teaspoonfuls of pure ground mustard, and see that the patient takes it *immediately*. Repeat the dose if necessary, and when the patient begins to vomit, give freely of warm water until the stomach is thoroughly cleared out. *Sulphate of zinc*, in doses of twenty grains to a drachm, may be used instead of the mustard, and in the same way, if it be at hand; but it is *important* that *no time be lost*. Tickling the throat with a feather will tend to excite vomiting.

After the stomach has been thoroughly evacuated, give a cupful of pure strong coffee. The patient should *not be allowed to sleep for at least twelve hours*, and if so much of the poison has been absorbed that the patient is with difficulty kept awake, he must be walked about the room by assistants; or if the weather be warm, he may be taken into the open air. If obliged to remain in a room, the windows should be opened to admit the fresh air. Cold water may occasionally be dashed on the head and shoulders. If, when first discovered, the patient is in such a condition that emetics will not operate, a stomach-pump should be used, if one is at hand, and there is any party present who understands using it. In some cases a galvanic battery, properly used, may be of much service.

In all cases of poisoning, summon a physician as soon as possible, if one be obtainable.

FROM ARSENIC.

In the treatment of poisoning by arsenic, it is best first (if vomiting has not taken place) to give an emetic of mustard or sulphate of zinc; and milk may be drunk liberally, both before and after vomiting has begun. The patient should never be allowed to exhaust his strength in retching without some milk, or other fluid, in his stomach for that organ to act on.

The HYDRATED PEROXIDE OF IRON, freshly prepared, is an antidote for poisoning by arsenic. It should be administered as soon as possible after the discovery that arsenic has been taken. It is perfectly harmless, and should be given in tablespoonful doses, every five or ten minutes, until entire relief is obtained, or until ten to twenty doses have been taken. The dose for children is one or two teaspoonfuls. The bottle should be well shaken before each dose. Should the patient survive (and the probability is in his favor, if the antidote be given early and faithfully), the inflammatory symptoms must be combated on the general principles for treating inflammation. The diet should consist exclusively of milk, gruel, cream, rice, and similar bland articles for several days.

In place of the hydrated oxide, the rust of iron and the precipitated carbonate should be resorted to in cases of emergency, possessing as they do, to a certain extent, the power of antidotes.

ALCOHOLIC LIQUORS.

Large quantities of alcoholic liquors sometimes produce fatal effects. The treatment in such cases is to evacuate the stomach as soon as possible; but, from the rapidity of absorption, this may not always be effectual. The patient should be kept roused, and cold effusion to the head plentifully used.

ALKALIES.

Ammonia, *potassa*, and *soda* are seldom taken in poisonous quantities; but when it so happens, the best antidote is

common vinegar. When this is not at hand, some oil, such as olive oil, lard oil, or goose oil, may be freely taken.

MINERAL ACIDS.

Give freely *water*, warm or cold, milk, oil, or mucilage, which, by simply diluting the acids, renders them less acrid, and at the same time assists the stomach in rejecting them. This course should be followed until the proper antidotes are prepared. These are the alkalies, potassa, soda, magnesia, and soap in solution.

OXALIC ACID.

Death from this poison is generally sudden. Lime water, or a mixture of chalk and water, has been recommended for the purpose of converting the acid into oxalate of lime.

Warm water should not be given to accelerate vomiting, *for dilution promotes the absorption of the poison.*

PRUSSIC ACID AND STRYCHNIA.

These poisons act with such rapidity as to leave no time for the administration of antidotes.

CORROSIVE SUBLIMATE.

This is an active poison, and being an ingredient of most "*Bed-bug Poisons*," is liable to be taken by mistake.

Our chief reliance is in the albumen or whites of eggs, which should be copiously swallowed, or introduced through the stomach-tube, which should be resorted to when the patient cannot swallow or vomit. Wheat flour, mixed with water, and taken in abundance, may be used when eggs cannot be obtained. When neither eggs nor wheat flour are at hand, milk forms a good substitute.

LEAD.

The sugar of lead (acetate of lead) is the only preparation which is resorted to as a poison.

Epsom salts (sulphate of magnesia) is a true antidote, as it converts the poison into a sulphate of lead, which is inert. The bicarbonates of soda and potassa are also good antidotes, and when sulphate of magnesia cannot be obtained, either may be used, dissolved in water. Care should be taken not to give too large a quantity. If the patient does not vomit, powdered mustard, or sulphate of zinc dissolved in water, may be given, as directed in poisoning by opium.

TRICHINA SPIRALIS.

The *trichina spiralis* is a parasite found especially in the muscles of hogs. But it has been found in the museles of various other animals, viz., eels, eats, dogs, badgers, hedgehogs, and moles. The animal finds its way into the alimentary canal of man chiefly from eating trichinous pork not subjected to proeesses of cooking sufficient to destroy the parasites. They are not destroyed by smoking, and they may retain their vitality in roasted or broiled meat much underdone. This parasite, as found in the muscles, is coiled up in a cyst, containing a granular substance at first, and afterwards calcareous matter. When expelled from the cyst, the parasites are seen to be round worms, $\frac{1}{28}$ of an inch long, and $\frac{1}{620}$ of an inch in thickness. So long as they remain in the muscular tissue, the worms are quiescent and sexless. When, however, they are taken into the stomach, and set free by the action of the gastric liquids upon the muscular tissue and the cysts, they pass from the stomach into the intestinal canal, and immediately begin to grow rapidly, attaining to three or four times their former size, acquire fully developed generative organs, and in the course of a week to ten days the female parasites contain living young in great abundance. The young trichinæ shortly after birth penetrate the mucous membrane, and find their way rapidly to the different muscles throughout the body. In a

piece of muscle $\frac{1}{12}$ of an inch square, and $\frac{1}{50}$ of an inch thick, twelve trichinæ have been counted, which would give, in round numbers, over eighty-five thousand to the cubic inch. The trichinæ which have been found to be contained in half a pound of meat may be sufficient to give birth, in a few days, to a brood numbering thirty millions. The introduction of these minute worms into the system gives rise to a disease of great gravity, involving much danger to life. This disease is at the present time exciting great interest, not only in this, but other countries. It is known as

THE TRICHINAL OR TRICHINATOUS DISEASE, OR TRICHINIASIS.

Symptoms. Abdominal pains and diarrhœa characterize the first stage of the disease. These symptoms occur within a few days after eating the diseased meat; that is, as soon as the young worms have been produced and become developed sufficiently to begin to migrate towards the muscles. The secondary symptoms relate to the muscles. Pains, resembling those of muscular rheumatism, are occasioned by the entrance of the trichinæ into the muscles. Certain of the muscles become contracted in some cases, and their extension occasions great suffering. Constitutional disturbance, more or less marked, accompanies both the primary and secondary symptoms. The general symptoms are not unlike those of typhoid fever, for which the disease is liable to be mistaken. Œdema of the face or lower extremities is apt to occur, and sometimes anasarca — dropsy of the flesh. Sweating is generally prominent as a symptom. Death takes place, in a certain proportion of cases, after a protracted period of suffering and exhaustion, being often preceded by a preternatural propensity to sleep. The danger, other things being equal, is proportionate to the abundance of trichinæ generated within the alimentary canal. If the number be not sufficient to cause death from the amount of local and constitutional disturbance which they occasion,

recovery takes place very slowly, the illness lasting for several weeks or even months. The trichinæ become encapsulated in the muscles, thereafter remaining quiescent, leaving the muscles more or less impaired.

Diarrhœa and abdominal pains, followed by muscular pains, together with more or less constitutional disturbance, should excite suspicion of this disease, and lead to a microscopic examination of the suspected meat, if any remains. It may also be well to have a portion of the feces examined microscopically. To early distinguish the affection is of the greatest importance, as the treatment of this disease, to be effectual, must be employed while the worms are in the alimentary canal.

TREATMENT. The object is either the destruction of the worms or their expulsion from the intestines. Cathartics are indicated for the latter object, but we have yet to learn what worm poisons are best suited to destroy this parasite. After the trichinæ have left the intestines, the opportunity for destroying or expelling them has passed. Recovery now depends on the ability of the system to endure them until they become encysted. Measures to relieve urgent symptoms, and to support the powers of life, are indicated, and the success of the treatment will depend on the judicious employment of measures for these ends.

To prevent this disease, abstain from meat, more especially the flesh of swine, not thoroughly cooked.

Animals, such as snakes, slugs, and lizards, are not infrequently exhibited to physicians, as having passed from the alimentary canal. It is a popular notion that they may live and grow indefinitely within the stomach and intestines, and give rise to a variety of morbid symptoms. It is safe to set down all the cases referred to, as cases of either self-deception or imposition.

DISEASED AND DECAYING FOOD.

Diseased and decaying food, whether animal or vegetable, should be scrupulously avoided, as being very unwholesome, and liable to cause sickness. Meats, vegetables, fruit, and berries often remain in market so long before sold that they are unfit for nourishment. Pork and beef, from animals fattened on unwholesome food, and which are consequently in a diseased condition, are often brought into market. These facts should be borne in mind, and great care observed in selecting articles of diet.

CAUTION TO PERSONS OVERTAKEN BY A THUNDER-STORM.

Never take shelter under a tree, haystack, wall, or fence, — such objects attracting the lightning, and endangering any one near them. It will be best to keep in the middle of the field or road, *especially if raining*, the lightning often passing harmlessly over a body whose surface is wet. Above all, do not hold up an umbrella, more particularly one with iron frames, the use of which, at such times, is highly dangerous.

When a person has been struck down by lightning, efforts to resuscitate may be made in the same manner as directed for cases of drowning. Electricity or galvanism may be used to advantage.

PART II.

PRACTICE OF SURGERY.

CHAPTER I.

ACCIDENTS, WOUNDS, SURGICAL INJURIES, &c.

PROSTRATION. COLLAPSE. SHOCK.

By *prostration*, or *collapse*, or *shock to the nervous system*, is meant that general depression of the powers and actions of life which immedietely follows any severe injury.

Symptoms. Coldness; insensibility, more or less perfect; pulse weak and fluttering; respiration sighing; sometimes nausea, or vomiting, or convulsions.

Causes. Every variety of injury to which mind or body is liable; as mechanical injuries, falls, blows, great and sudden extremes of grief, or joy, or fear, or cold; large doses of any corrosive or sedative poisons; great loss of blood, &c.

Treatment. If a patient has just received a severe injury, and that, independently of bleeding, or of any local injury, he is in such a state of faintness and depression as to render his life precarious, the indication is to excite the heart and brain to a moderate and healthy reaction; and this may be done by giving a little hot brandy, or other spirit, and water. Heated bricks, or bottles of hot water, may be applied to the feet, and at the sides of the chest, and

the patient covered with warm blankets, &c., if in cold weather.

When warmth and circulation have been restored, cease to give spirit, so that you may not run the risk of setting up fever, or bringing on bleeding from any internal organ that may have been injured. If vomiting takes place, a little soda water with brandy may allay it. Sucking ice will sometimes answer. If these fail, an adult may take one or two grains of opium, in pill.

Formerly it was the custom to bleed patients immediately after an injury, and before they had recovered from a state of faintness, but such would now be regarded bad practice.

When a person has received a severe injury, some regular physician should be called, if within reach.

METHODS OF ARRESTING HEMORRHAGE OR BLEEDING.

The occurrence of bleeding from cuts, wounds, &c., if considerable, always demands immediate attention.

When an artery is wounded, the blood spirts, or is thrown out in jets, and is of a florid color. The blood from a vein flows or wells out in a continuous stream, as water rises from a spring, and not in jets, and is of a darker color than arterial blood. Bleeding from superficial wounds, or abrasions, when no vessel of notable size is opened, may generally be checked by sponging the part with iced water, or, if in winter, by applying a little snow to the wound. A strong solution of alum is good. Tannin and powdered matico leaves are also excellent.

If an artery of considerable size has been cut, and the blood flows in spirts, or with a jerk, place your finger on the spot it springs from, and hold it there with a *firm pressure*, while you direct some one to pass a handkerchief, or other article, round the limb (supposing the cut or injury to

be in one) *above* the wound, and to tie its two ends together in a hard knot. A whip-handle, cane, or stick must now be passed under the knot (between the upper surface of the limb and handkerchief), and turned round and round, until the handkerchief encircles the limb with considerable tightness. Then take off your finger; if the blood still flows, tighten the handkerchief, by a turn or two of the stick, until it ceases. The patient may now be removed (taking care to secure the stick in its position) without running any risk of his bleeding to death by the way.

As this apparatus cannot be kept on long without destroying the life of the parts, endeavor, as soon as possible, to secure the bleeding vessel, and take it off. If you have no ligature silk, wax together three or four threads of sufficient length, cut the ligature they form into as many pieces as you think there are vessels to be taken up, each piece being about a foot long. With a sponge or cloth, moistened with water, wash the blood from the part; then, with a sharp hook (tenaculum) or slender pair of forceps in your hand, fix your eye steadfastly upon the wound, and direct the handkerchief to be relaxed by a turn or two of the stick; you will now see the mouth of the artery from which the blood springs; seize it with your hook or forceps, draw it a little out, while an assistant passes a ligature round it, and ties it tightly with a double knot. In this way take up every bleeding vessel you can see or get hold of.

If the wound is too high up in a limb to apply the handkerchief, do not lose your presence of mind; the bleeding can still be controlled. If it is the *thigh*, press firmly in the groin; if in the arm, with the hand end or ring of a common door-key, make pressure above the collar bone, and about its middle, against the first rib which lies under it. The pressure is to be continued until assistance is procured and the vessel tied.

If the wound is on the head, press your finger firmly on it, until a compress can be brought, which must be bound firmly

over the artery by a bandage. If the wound is in the face, or so situated that pressure cannot be effectually made, or you cannot get hold of the vessel, and the blood flows fast, place a piece of ice directly over the wound, and let it remain there till the blood coagulates, when it may be removed, and a compress and bandage applied.

A little cotton wool, moistened and rolled in tannin, or powdered matico leaves, if bound firmly upon the part, will often arrest the hemorrhage.

INFLAMMATION.

By *inflammation*, is understood that condition of a part characterized by *pain*, *heat*, *redness*, and *swelling*.

THE PAIN is caused by the increased quantity of blood in the part pressing on the nerves.

THE REDNESS, by the increased quantity of blood in the part, and by stagnation of the current; vessels, naturally too small, admitting the red corpuscles.

THE HEAT, by the increased quantity of blood, and the more rapid oxidation of the tissues, &c.

THE SWELLING, by increase in the quantity of blood, and by effusion into the tissues of lymph, serum, pus, &c.

TERMINATIONS OF INFLAMMATION.

Inflammation may terminate in recovery; sudden change from one part to another; effusion of fluid, as in dropsy of the chest; in adhesion; in ulceration; in mortification or gangrene. Inflammation may be either acute or chronic. When wounds are undergoing the process of repair, there arises a certain amount of inflammation which is termed *healthy*, so long as it remains within proper bounds. But when it exceeds these bounds, and when it arises from other causes than wounds and injuries, treatment is required.

In inflammation the pain is constant, and increased on pressure.

TREATMENT. If possible, rest the part and elevate it. A thorough purgative may be taken, and the diet should be low. Apply warm or cold water to the part, according to the feelings of the patient. Leeches or cupping may be required. *Low forms of inflammation*, occurring in persons very much debilitated, require tonics and stimulants.

MORTIFICATION.

By *mortification*, is understood the death of any part of the body in consequence of disease or injury.

Gangrene is a term applied to parts nearly, but not quite, dead.

SYMPTOMS. When inflammation is about to terminate in mortification, the part becomes of a purple or blue color, and the heat, sensibility, and pain diminish; but the swelling may increase, and little blisters often form on the part.

TREATMENT. Support the strength by milk, essence of beef, &c., and give wine or brandy with quinine (R. 146). Poultices containing charcoal, or a little diluted liquid chloride of soda, may be applied to the part.

WOUNDS AND THEIR TREATMENT.

INCISED WOUNDS.

By an *incised* wound, is meant a clean, smooth cut.

TREATMENT. Having stopped the bleeding, wash away all blood, and any foreign matter which may be in the wound; then draw the edges together, and hold them in that position by narrow strips of adhesive plaster, placed a little distance apart. A soft compress of old linen or lint may be laid over the whole, and secured, if necessary, by a bandage. Small cuts, which bleed but little, only require narrow strips of adhesive plaster to keep their edges together.

Should much inflammation follow an incised wound, remove the strips of adhesive plaster, and keep the patient quiet and on a low diet. If it is plain that matter (pus) must form before the wound will heal, apply a flaxseed or slippery-elm poultice until that event takes place, after which dress, night and morning, with simple ointment, carefully cleansing the wound with warm water or soap suds at each dressing.

Although narrow strips of adhesive plaster form the best means of keeping the sides of the wound together, when they can be applied, yet in the ear, nose, tongue, lips, and eyelids, it is necessary to use stitches, which are made in the following manner: Having armed a suture needle, of proper size, with a piece of waxed ligature silk, pass the point through the skin, at a little distance from the edge of the cut, and bring it out of the opposite one at the same distance. If more than one stitch is required, repeat the operation until a sufficient number are taken, leaving the threads loose, until all the stitches are passed, when the respective ends of each thread must be tied in a hard double knot, drawn in such a way that it bears a little on the sides of the cut. When the edges of the wound are partly united, as they will usually be in two to four days, cut the knots and carefully withdraw the threads.

From what has been said, it must be evident that in all wounds, after arresting the flow of blood and cleansing the parts, the great indication is to bring their sides into contact, throughout their whole depth, in order that they may grow together as quickly as possible, and without the intervention of matter. To obtain this very desirable result, in addition to the means already mentioned, there are two things to be attended to — the position of the patient and the application of a bandage. The position of the patient should be such as will relax the skin and muscles of the part wounded, thereby diminishing their tendency to separate. A common bandage, of a proper width, passed over the compresses moderately tight, not only serves to keep them in

their proper place, but also tends, by its pressure, to forward the great object already mentioned. If, however, the wound is so extensive and painful that the limb or body of the patient cannot be raised for the purpose of applying or removing it, the best way is to spread the two ends of one or two strips of linen or leather with adhesive plaster (common machine-spread adhesive plaster will answer), which may be applied in place of the bandage, as follows: Attach one end of a strip to the sound skin, at a short distance from the edge of the compress, over which it is to be drawn with moderate firmness, and secured in a similar manner on its opposite side. A second or third may, if necessary, be added in the same way.

In all wounds, if violent inflammation comes on, reduce it by purging, low diet, leeching, &c. If there is great pain, some opiate may be given, as occasion requires; and if suppuration seems to be taking place, the dressing may be removed, and poultices of flaxseed meal, or ground slippery-elm bark, applied from time to time.

PUNCTURED WOUNDS.

These are caused by pointed instruments, as nails, needles, awls, swords, bayonets, splinters of wood, &c. If there is much bleeding, that should be stopped; and any foreign body which may be in the part, withdrawn; and, providing it becomes necessary, the wound may be enlarged a little, to enable you to do it. When pus or matter forms, it should be allowed free exit, and the part covered with mild dressings, as a common sore. Should inflammation become excessive, leeches, low diet, and purgatives may be required. To relieve pain, laudanum or Dover's powder may be occasionally taken, according to directions given for using these medicines.

CONTUSED AND LACERATED WOUNDS.

These resemble each other, and are caused by round or blunt bodies, as musket-balls, clubs, stones, machinery, &c. They are, in general, attended by but little bleeding; if, however, there should be considerable, it must be arrested, and all foreign bodies carefully removed from the injured part. If the parts injured are much torn, wash them with warm water, and then (having secured all bleeding vessels) lay them down in as natural a position as possible, drawing their edges gently together by strips of adhesive plaster, or stitches if necessary. Apply soft anodyne dressing, made by wetting lint, or soft cloth, with the following lotion: —

Tincture of Opium, ...	1 ounce,
Tincture of Arnica, ...	1 ounce,
Water, ...	4 ounces.

Mix.

When suppuration, or the formation of pus takes place, flaxseed or slippery-elm poultices may be used. Pain may be relieved by appropriate doses of laudanum or morphine.

WOUNDS OF PARTICULAR PARTS.

WOUNDS OF THE SCALP.

In all wounds of the scalp, the hair should be shaved off around the injury. When this is done, wash the parts, and draw the edges of the wound together with adhesive plaster. If it has been violently torn up in several pieces, wash and lay them all down on the skull again, drawing their edges as nearly together as possible with strips of adhesive plaster, or, if necessary, by stitches. Cover the whole with a soft compress, smeared with a little simple ointment, or wet with the lotion recommended for contused and lacerated wounds. If much inflammation arises, and suppuration ensues, poultices may be required.

WOUNDS OF THE EAR AND NOSE.

Wash the parts clean, and draw the edges of the wound together by as many stitches as are necessary. If the part is even entirely separated, and has been trodden under foot, by washing it in warm water, and placing it accurately in its proper place by the same means (stitches), it may still adhere.

WOUNDS OF THE THROAT.

When the throat is wounded, seize and tie up every bleeding vessel which you can get hold of. If the trachea or windpipe is cut wholly or partially through, bring its edges together by stitches, taking care to pass the needle through the loose membrane which covers the windpipe and not through the windpipe itself. The head should be bent on the breast, and secured in that position by bolsters and bandages, to favor the approximation of the edges of the wound.

WOUNDS OF THE CHEST.

If it is a simple incised wound, draw the edges together with adhesive plaster, cover it with a compress of linen, and pass a bandage round the chest. The patient should be kept quiet, and on a low diet, to prevent inflammation.

Should the wound be occasioned by a bullet, extract it if possible, together with any pieces of cloth or other foreign body which may be in it; then cover the part with a piece of linen, smeared with a little simple ointment; taking care, at each daily dressing, that any matter which may have collected has free exit. If the wound extends into the cavity of the chest, and a portion of lung protrudes, return it as quickly and gently as possible. In such cases the services of a reliable medical man are required, and should be obtained if possible, as under the very best treatment the case may result unfavorably.

WOUNDS OF THE ABDOMEN.

If a simple incised wound, and the bowels are not injured, close the wound by adhesive plaster, or, if necessary, by stitches passed through the skin, about half an inch from its edges, and cover the whole by a soft compress, secured by a bandage. Any inflammation which may arise should be reduced by leeching, low diet, rest, &c. Pain may be allayed by proper doses of laudanum or Dover's powder.

If the wound has penetrated the abdomen, and any part of the bowel protrudes, if clean and uninjured, return it as quickly as possible; if covered with dirt, clots of blood, &c., wash it carefully in warm water previous to so doing.

If the bowel is wounded, and only cut partly through, draw the edges of it together by a stitch, and return it; if completely divided, connect the edges by four or six stitches, at equal distances, and replace it in the abdomen. The external wound may be closed by adhesive plaster or stitches. These wounds are always serious, *very often fatal*, and a surgeon should be obtained, if possible, to take charge of the patient at once. The nature of such cases admits of no delay.

WOUNDS OF THE JOINTS.

Wounds of the joints are always serious, and demand proper and close attention. The edges of the wound should be kept together by adhesive plaster or stitches, and the part should be kept perfectly at rest. If much inflammation exists, leeching, low diet, purging, and opiates will be required. If a wound has penetrated a joint, so as to allow the synovial fluid to escape, permanent stiffening will be likely to ensue; and, in such cases, the limb should be kept in that position which will prove most useful; that is, the leg should be kept extended or straight, and the arm bent at the elbow, so that the hand will cover the navel.

WOUNDS OF THE TENDONS.

Tendons, or "sinews," are occasionally wounded and ruptured. They may be treated precisely like any other wound, by keeping the divided parts together. The tendon which connects the great muscles forming the calf of the leg with the heel, called the tendon of Achilles, is occasionally cut with the adze, and ruptured in jumping from heights. These accidents are to be treated by drawing up the heel, extending the foot, and placing a splint on *the fore part* of the leg, extending from the knee to beyond the toes, which, being secured in that position by a bandage, keeps the foot in the position first mentioned. The hollow under the splint should be filled up with tow or cotton. If the skin falls into the space between the ends of the tendon, apply a piece of adhesive plaster to draw it out of the way. It takes five or six weeks to unite, but no weight should be borne on the limb for several months.

POISONED WOUNDS.

FROM BITES OF MAD DOGS, RATTLESNAKES, ETC.

TREATMENT. *Without hesitation or delay*, cut out the parts bitten, taking along with them a portion of the surrounding sound flesh; bathe the wound in hot water, to encourage bleeding for a few minutes, and then thoroughly cauterize with nitrate of silver.

Should the patient be too timid to allow the use of the knife, burn the wound very freely with the caustic, and place in it a tuft of tow or cotton, well moistened with turpentine. The discharge of matter which follows should be kept up for several days, The only reasonable chance of safety is found in the above plan.

What is called the *Western cure* for the bite of the rattlesnake, consists in making the patient drunk; and very large

quantities of spirit are required. Vomiting of bile seems to be a favorable symptom and effort to expel the poison, and may be treated by more spirit, and by a mustard poultice to the pit of the stomach.

Never neglect the *cutting* and *cauterizing* in the hope that other measures may answer, for they are of very doubtful efficacy.

STINGS OF BEES AND WASPS, BITES OF MOSQUITOS, ETC.

If the stings are left in, extract them with a fine forceps; then bathe with diluted aqua ammonia, cologne water, spirit of camphor, salt water, vinegar, or volatile liniment. Mosquito bites are quickly relieved by applying a solution of common salt in water; but any of the above-mentioned articles are good.

To prevent mosquitos from biting, use the following mixture: —

Take of Oil of Pennyroyal, . . . 2 drachms,
Glycerine, ... 2 drachms,
Spirit of Camphor, . . 1½ ounces.

Mix. Apply to the face and hands every second or third hour, or as often as necessary.

FRACTURES.

Fractures (broken bones) are known by the sudden and severe pain; by the misshapen appearance of the limb; sometimes by its being shortened; by the patient being unable to move it without excruciating pain, — *but most certainly* by grasping the limb above and below the spot where the fracture is supposed to be, and twisting it different ways, when a *grating* (crepitus) will be felt, occasioned by the broken ends of the bone rubbing against each other. If the swelling, however, is very great, this experiment should not be made until it is reduced.

FRACTURE OF THE BONES OF THE NOSE.

The bones of the nose, from their exposed situation, are frequently forced in or broken. To treat the injury, any smooth article, which will pass into the nostrils, should be immediately introduced with one hand, to raise the depressed portions to their proper place, while the other hand is employed in moulding the nose into its original shape. If there is much bleeding, check it by applying or injecting cold water, to which a little tannin or alum may be added. Powdered matico leaves, used as a snuff, will often speedily arrest the hemorrhage. If inflammation follow, apply cold lotions.

FRACTURE OF THE LOWER JAW.

This accident may be readily detected by looking into the mouth, or by passing one or two fingers along the teeth, the thumb being applied outside. The injury is to be remedied by keeping the lower jaw firmly pressed against the upper one, by means of a bandage passed under the chin and over the head. If it is broken near the angle, or that part nearest the ear, place a cushion or roll of linen in the hollow behind it, over which the bandage must pass, so as to make it push that part of the bone forward. The parts should be confined in this way for about three weeks, during which time all the nourishment that is taken should be sucked between the teeth. If, in consequence of the blow or injury a tooth is loosened, do not disturb it, for if let alone it will probably grow fast again.

FRACTURE OF THE COLLAR BONE.

This accident is a very common occurrence, and is known at once by passing the finger along it, and by the swelling and tenderness at the point of injury. To reduce it, seat the patient on a chair, remove the shirt, and place under the arm a firm roll of linen or other substance, made in the form of a wedge, the thick end of which should press against the

arm-pit. This arm, bent to a right angle at the elbow, is now to be brought down to the side, and secured in that position by a long bandage, which passes over the arm of the affected side and round the body. The fore-arm (that part reaching from the elbow to the wrist) is to be supported across the breast by a sling. The wedge-shaped compress in the arm-pit may be held in its place by a piece of wide tape, passed over the shoulder of the opposite side, the ends being sewed to the upper part of the compress, one before and the other behind. It takes four to five weeks for this bone to re-unite.

FRACTURE OF THE ARM.

Seat the patient on a chair, or the side of a bed; let an assistant hold the sound arm, and keep the body of the patient steady, while another grasps the wrist of the broken one, and steadily extends it in an opposite direction, bending the fore-arm a little, to serve as a lever. You can now place the bones in their proper situation. Two splints of shingle, or stout pasteboard, long enough to reach from just below the shoulder to near the elbow, may then be well padded with cotton or tow, and laid along each side of the arm, and kept in that position by a bandage. The fore-arm is to be supported in a sling. For greater security we sometimes put two shorter splints between the first ones; that is, one on top, and the other underneath the arm.

Before applying the splints, the hand and fore-arm should be well and evenly bandaged, to prevent œdema or swelling. At the end of five or six weeks the patient may be allowed to swing the arm gently backwards and forwards, and gradually to bring it into use.

FRACTURE OF THE BONES OF THE FORE-ARM.

Let one assistant grasp the arm just above the elbow, and hold it firmly, while another takes hold of the hand or wrist, and makes gentle but firm extension, the thumb being up-

wards. You are now to apply a splint to the inner side, reaching from near the elbow to the ends of the fingers. An outside splint, reaching from near the elbow to the back of the wrist may also be applied. Both splints should be wide enough, and should be padded along their middle. They should be kept in place by a bandage, and the arm placed in a sling. The cure is usually complete in four to six weeks.

FRACTURE OF THE WRIST, ETC.

This accident is of rare occurrence. When it does happen, the injury is often so great as to require amputation. If an attempt be made to save the hand, lay it on a splint well covered with tow or cotton; the splint to extend a little beyond the fingers. Place another splint opposite to it, lined with the same soft material, and secure them by a bandage.

The bones of the hand are sometimes broken. When this is the case, fill the palm with a soft compress of tow or cotton, and then lay a splint on it, long enough to extend from the elbow to beyond the ends of the fingers, to be secured by a bandage, as usual.

When a finger is broken, extend the end of it until it becomes straight, place the fractured portion in its proper position, and then apply two small pasteboard splints, one below and the other above, to be secured by a narrow bandage. The top splint should extend from the end of the finger over the back of the hand. Recovery generally takes place in two or three weeks.

FRACTURE OF THE RIBS.

When, after a fall or blow, the patient complains of a pricking pain in his side, we may suspect a rib is broken. It is ascertained by placing the tips of two or three fingers on the spot where pain is felt, and desiring the patient to cough, when the *grating* sensation may be felt; and there will be tenderness at that point. All that is necessary is to

pass a broad bandage round the chest, so tight as to prevent the motion of the ribs in breathing, and to keep the patient quiet, and on a low diet.

FRACTURE OF THE THIGH.

A fracture of this bone is generally known by the deformity of the thigh, the shortness of the whole limb when compared with its fellow, and by the swelling at the point of the fracture. This is a serious accident, and the nearest regular physician should be called. Keep the patient quiet, with the limb as nearly in its natural position as possible, until he arrives.

FRACTURE OF THE KNEE-PAN.

This accident is easily ascertained on inspection. It may be broken in any direction, but is most generally so across or transversely. It is reduced by bringing the fragments together, and keeping them in that position by a long bandage passed carefully round the leg, from the ankle to the knee; then pressing the upper fragment down so as to meet its fellow (the leg being extended), a thick compress of linen is placed above it, over which the bandage is to be continued. The extended limb is now to be laid on a board splint, extending from the upper part of the thigh to the heel, thickly covered with tow, cotton, or soft old linen, to fill up the inequalities of the leg. For additional security, two strips of cloth may be nailed to the middle of the splint, one on each side, and passed about the joint, the one below, the other above, so as to form a figure of eight. In twenty or thirty days the limb should be moved a little, to prevent stiffness.

If the fracture is through its length, bring the parts together, place a compress on each side, and keep them together with a bandage, leaving the limb extended and at rest. Any inflammation in this or other fracture is to be reduced by low diet, purging, cooling applications, leeching, &c.

FRACTURE OF THE LEG.

From the thinness of the parts covering the principal bone of the leg, it is easy to ascertain if it is broken obliquely. If, however, the fracture be directly *across*, no displacement will occur; but the pain, swelling, and the *grating sensation* will sufficiently decide the nature of the accident. If the fracture is oblique, let two assistants extend the limb, while you place the broken parts in their natural position. Two splints, that reach from a little above the knee to nine or ten inches below the foot, — having near the upper end of each four holes, and a vertical mortise near the lower end, into which is fitted a cross-piece, — are now to be applied as follows: Lay two pieces of tape, about a foot and half long, on each side of the leg, *just below the knee joint*, and secure them there by several turns of a bandage; pass a silk handkerchief, or some such article round the ankle, cross it on the instep, and tie it under the sole of the foot. The two splints are now placed, one on each side of the leg, the four ends of the pieces of tape passed through the four holes and firmly tied, and the cross-piece placed in the mortise. By tying the ends of the handkerchief to this cross-piece the business is finished. Rest for four or six weeks will be necessary.

FRACTURE OF THE BONES OF THE FEET.

The bone of the heel (*os calcis*) is sometimes, though rarely, broken. It is known by a crack at the moment of the accident, a difficulty in standing, by the swelling, and by the grating noise on moving the heel. To reduce it, take a long bandage, lay the end of it on top of the foot, carry it over the toes, under the sole, and then, by several turns, secure it in that position. The foot being extended as much as possible, carry the bandage along the back of the leg above the knee, where it is to be secured by several turns, and then brought down on the front of the leg, to which it is

to be secured by circular turns. In this way the broken pieces will be kept in contact, and in the course of a month or six weeks, will be united.

Fractures of the foot, toes, &c., are to be treated like those of the hand.

DISLOCATIONS.

Dislocations, or bones being out of joint, are known by the deformity of the joint, when compared with its fellow; by the pain and inability to move the limb; by its being longer or shorter than usual, and by the impossibility of moving it in particular directions. The sooner the attempt is made to reduce a dislocated bone, the easier it will be done.

DISLOCATION OF THE LOWER JAW.

This accident, which is occasioned by blows, or yawning, is known by an inability to shut the mouth, and the projection of the chin. To reduce it, seat the patient on a chair, with his head supported by the breast of an assistant, who stands behind him. Your thumbs being covered, are then to be pushed between the jaws, as far back as possible; then, while you bear down upon the last molar or double teeth with your thumbs, press up the chin with your fingers, and the bone will snap into its place.

DISLOCATION OF THE COLLAR BONE (CLAVICLE).

This bone is rarely dislocated. Should it occur, apply the bandages, &c., directed for a fracture of the same part.

DISLOCATION OF THE SHOULDER.

Dislocation of the shoulder is the most common of all accidents of the kind. It is very easily known by the deformity of the joint, and the head of the bone being in most cases found in the armpit; the elbow is carried out some inches from the body, and more or less rigidly fixed; the

arm being slightly lengthened. To reduce it, place the patient upon a bed or on the floor. Place one heel in the armpit, against the head of the bone. Then, taking hold of the arm above the elbow, or at the wrist, pull steadily, and while so doing, work the head of the bone outwards into the socket. If not easily reduced, give ether to relax the muscles; then try again.

Should the head of the bone be found in any other position than in the armpit (axilla), have an assistant pull steadily upon the arm, and move it in the direction which it can be moved easiest, while you assist in working the head of the bone into its proper position.

In all cases of dislocation, as well as of fracture, call a surgeon, if one is obtainable.

DISLOCATION OF THE ELBOW.

If the patient has fallen on his hands, or holds his arm bent at the elbow, and every endeavor to straighten it gives him pain, it is dislocated *backwards*. Seat him on a chair, and let an assistant grasp the arm just above the elbow, and pull it backwards, while, by grasping the wrist, you pull the bone forwards into place. The arm should be placed in a sling for a few days.

If dislocated sideways, let two assistants make traction, in the manner just stated, while you push the bones into their natural position.

DISLOCATION OF THE WRIST, FINGERS, ETC.

Dislocations of the wrist, fingers, and thumb are readily perceived on examination. They are all to be reduced by forcibly extending the lower extremity of the part, and pressing the bones into their places. These accidents should be attended to without delay.

DISLOCATION OF THE HIP.

Send for a surgeon as soon as possible. Do the same in dislocation at the knee joint.

DISLOCATION OF THE ANKLE.

The ankle may be dislocated in various ways. Attempt reduction as early as possible, by means of extension and counter-extension, made with the hands, the foot being at the same time flexed, extended, and moved in various directions, while direct pressure is exerted to force the bone into place.

DISLOCATION OF THE SMALLER BONES OF THE FOOT.

These, when recognized, may sometimes be corrected, without any great difficulty, by direct pressure. They are to be dealt with on the same principle as those of the corresponding bones of the hand.

SPRAINS.

Sprains are injuries done to the ligaments, tendons, and other structures surrounding the joints. They are produced by jumping, falling, or other causes which forcibly stretch or lacerate them. The joints most liable to sprains are the wrist and ankle joints : the wrist joint becomes sprained in consequence of the arms being naturally thrown out by persons in falling, to prevent their being seriously injured, by which means the whole weight of the body is thrown on the wrists, which not only sprains these joints, but sometimes fractures them. The ankle joint is frequently sprained by jumping from a considerable height, or the foot turning under the weight of the body. Sprains are attended with great pain at the time of the accident, and also with considerable swelling and discoloration, arising from the effusion of blood into the surrounding structures. The joints at first can be easily moved, but as the swelling and inflammation increase, all motions become painful, and the patient cannot use the injured joint without increasing the trouble. After

a severe sprain of the ankle joint, it will be several weeks, and in some cases several months, before full weight can be borne upon it. Such injuries improve very slowly.

TREATMENT. *Rest* and *time* are important in the treatment of these injuries. During the inflammatory stage, when the part is swollen and painful, it should not only be kept at rest, but in an elevated position, and a cooling lotion should be kept constantly applied. Cloths, saturated with the following lotion, should be applied, and renewed as often as they become warm.

Take of Acetate of Lead	. . .	1 drachm,
Water,	. . . . .	1 pint.

Mix. This practice should be continued for the first day or two; after which, should the swelling or pain increase, leeches may be applied to the parts affected, and the bleeding freely encouraged by means of a sponge and warm water constantly applied to the leech-bites. Hot fomentations should afterwards be applied, by means of flannels, wrung out of a decoction of poppy-heads; and the bowels kept in a free state by Epsom salts. By this treatment the inflammation will generally rapidly subside, and the parts return to their usual healthy condition in persons of sound health. The patient should not be allowed to make use of his limb too soon, as the irritation and inflammation of the joint will thereby be kept up, and thus he may suffer from it for months or even years. When all signs of the trouble have disappeared, the motions of the part may be promoted by gentle exercise, and the use of the volatile liniment, night and morning.

BRUISES.

A bruise or contusion signifies an injury inflicted by some blunt object, without breaking the skin.

TREATMENT. If the bruise be a bad one, the injured part should, if possible, be placed in a raised position, and cold water freely applied. Should the part become very much swollen and painful, leeches may be applied. These measures, together with rest, moderate purgatives, and a rather light diet, will generally prove sufficient to check extravasation of blood, and prevent or subdue inflammation. After inflammation and tenderness have subsided, the part may be rubbed with stimulating liniments, to produce absorption of the effused fluids, and restore the use of the parts.

BURNS AND SCALDS.

Extensive burns or scalds, even of small severity, are always dangerous; and especially if blistering has occurred early, and the cuticle has been removed. Burns on the trunk are always more dangerous than those of an equal extent on the extremities.

TREATMENT. In slight cases a little glycerine will be found as good as anything, and even in quite severe and extensive burns, if enough of it be at hand, it will be found equal if not superior to almost any other article. Sweet oil or linseed oil may be used, when glycerine is not obtainable. A liniment, composed of equal parts of lime-water and linseed or sweet oil, is excellent. After any of the above articles have been applied, the parts burned should be wrapped in cotton wool.

Should the burn be very extensive, and the patient very much prostrated in consequence, brandy, beef tea, and milk should be given. If the pain be very great, laudanum may be given with caution, to produce relief. In all extensive burns, call a physician as soon as possible, if one can be obtained.

CONCUSSION OF THE BRAIN.

Concussion of the brain (commonly called stunning), signifies sudden interruption of the functions of the brain, caused by a blow, fall, or other mechanical injury to the head.

Symptoms. In ordinary cases the patient lies for a time motionless and insensible. After a time he moves his limbs as if in uneasy sleep, and vomits, and frequently recovers his senses immediately afterwards; remaining, however, giddy, confused, and sleepy, for some hours. In more severe cases, the patient is profoundly insensible, the surface pale and cold, the features ghastly, the pulse feeble and intermittent, and the breathing slow, or performed only by a feeble sigh, drawn at intervals.

Vomiting is an important symptom, not present in very slight, nor in very severe cases. Its occurrence is generally an indication of approaching recovery.

Treatment. Rub the surface of the body with the hand, and apply warmth to the feet, if the depression is very great. It is better, in most cases, to leave the patient to recover by himself, than to be officious in giving stimulants, as they would increase the effusion of blood, supposing the brain to be lacerated. In these cases it is improper to put strong drinks into the patient's mouth, for he cannot swallow; and if he should be so far recovered as to make the attempt, they might, probably, enter the windpipe and cause strangulation. It is also improper to bleed him, for the blood cannot flow until he begins to recover, and then its loss might destroy him, by inducing fatal prostration. Smelling salts or ammonia may be held to the nostrils, but only for a few seconds at a time. It is better to have a little patience in these cases, for by haste and much dosing we may do harm rather than good.

After reaction has taken place, the bowels should be freely moved, and perfect rest and low diet observed.

COMPRESSION OF THE BRAIN.

If from a blow, fall, or other injury, the skull is fractured, and portions of bone depressed, causing compression of the brain, procure surgical assistance, if possible, without delay, as there is nothing but an operation that can be of any avail. In these cases the patient generally lays senseless and motionless; his breathing slow, noisy, and laborious; the pupil of his eye enlarged, and will not contract, even by a strong light, and his muscles are relaxed as in a person just dead.

BLEEDING FROM THE NOSE. (*Epistaxis.*)

Causes. Fulness of blood, violent exercise, peculiar positions of the body, blows, &c.

Treatment. Keep the patient erect, or sitting with his head thrown a little backwards; take off his cravat, unbutton his shirt collar, and expose him freely to the cold air; apply cold water to the face and back of the neck. If these measures are not sufficient, moisten a long plug of cotton with water, then roll it in powdered matico leaves, tannin, or alum, and work it up the nostril.

In very obstinate cases, a small elastic catheter or bougie may be passed through the nostril, into the throat, drawn out at the mouth, and a bit of fine sponge be fastened to it, and drawn back again, so as to make the sponge block up the posterior nostril. In doing this it is necessary to leave a piece of the string, used in tying the sponge to the catheter, hanging in the throat, so as to be got hold of, in order to withdraw the sponge, which should, in most cases, be removed in a day or two. After plugging the posterior nostril with the sponge, the nostril should be well stopped up in front with cotton or lint.

COMPOUND ACCIDENTS.

Having spoken of the treatment to be pursued for a wound, fracture, dislocation, &c., as happening singly, it remains to be stated what is to be done when they are united.

We will suppose that a man has been violently thrown from a carriage. On examination, a wound is found in his thigh, bleeding profusely; his ankle is out of joint, with a wound communicating with its cavity, and the leg is broken. In the first place, stop the bleeding from the wound in the thigh; reduce the dislocation next; draw the edges of the wounds together with adhesive plaster, and procure a surgeon as quickly as possible. If, instead of wounds, fracture, and dislocation, there is concussion of the brain, a dislocation and fracture, attend to the concussion first, the dislocation next, and lastly the fracture.

AMPUTATION.

Amputation, or the cutting off of limbs, should never be attempted except by a surgeon. If a limb be nearly severed from the body by accident, and hang merely by a slip of skin or muscle, it may be divided with a sharp knife.

RUPTURES. (*Hernia.*)

Ruptures are indicated by tumors or swellings caused by the protrusion of some part of the bowels through certain natural openings. They are divided into reducible, irreducible, and strangulated. They mostly occur in men, in the groin and scrotum.

Causes. Straining in any way; vomiting; lifting heavy weights; violent exercise, as jumping, running, &c.; weakness of the parts.

REDUCIBLE RUPTURES.

SYMPTOMS. A small swelling, free from pain, and generally soft, the color of the skin over it remaining unaltered. While standing up the swelling *increases;* on lying down it *decreases*, the patient being able to return the parts himself while in that position.

The swelling is also increased by coughing, sneezing, or straining. If he is flatulent, a rumbling sensation may be felt in it.

TREATMENT. The patient should place himself on his back, with his hips a little elevated, draw up his knees to his abdomen, and if the parts do not return of themselves, endeavor to push or knead them up into the abdomen, through the opening at which they came out, and which, if the tumor be in the groin or scrotum, is an oval ring or slit in the groin, at the precise spot where the swelling first appeared. When this is effected, he should remain quiet until a truss can be procured, the spring of which must be passed round his body, and the pad be applied directly over the spot first mentioned. It should be worn sufficiently tight to prevent the escape of the bowels again. After the truss has been applied, it will be well to have the patient get up and walk about, when, if the swelling does not reappear, the truss is properly applied; if otherwise, take it off, return the parts as before, and apply it again; if then, on rising, walking about, coughing, &c., the parts are found to be well kept up, he may resume his ordinary business. The truss should be always worn during the day, and in some cases during the night.

IRREDUCIBLE RUPTURES.

SYMPTOMS. A rupture in which there is no pain, yet that cannot be returned into the abdomen, in consequence of an increased bulk of the parts, or their having formed adhesions, or grown fast to adjoining parts.

Treatment. Apply a hollow bag truss, or else a truss with a hollow pad that shall firmly embrace the tumor, and prevent any additional protrusion. The patient should avoid all violent exertion, or excess in diet, and should never let his bowels be confined.

STRANGULATED RUPTURES.

A rupture is said to be strangulated, when it is constricted in such a way that the contents of the bowels cannot be propelled onwards, and the return of its venous blood is impeded.

Symptoms. The patient first complains of flatulence, colicky pains, a sense of tightness across the belly, desire to go to stool, and inability to evacuate. Stools may, however, be passed, if there be any fecal matter in the bowel, below the hernia, but with very transient relief. To these symptoms succeed vomiting of the contents of the stomach, then of mucus and bile, and, lastly, of matters which have acquired a fecal appearance, by being delayed in the small intestines. There is often considerable diversity in the rapidity and violence of the symptoms. If the patient is a strong adult, and the strangulation has commenced suddenly, with a fresh protrusion during some forcible exertion, inflammation may come on instantly, and the patient be dead in a few hours. After inflammation has set in, the tumor becomes tender, and the tenderness soon diffuses itself over the abdomen, which shortly becomes considerably swelled. The countenance is anxious; the vomiting almost constant; the patient restless and despondent; and the pulse small, hard, and wiry. After a variable time, if relief is not obtained, the constricted parts begin to mortify; the skin becomes cold; the pulse very rapid and tremulous, and the tumor dusky red; but the pain ceases, and the patient expresses himself relieved, and dies soon afterwards.

Treatment. Send immediately for the best medical aid which may be within reach. If you are where no physician

can be obtained, place the patient on his back, with his shoulders elevated, and the thighs drawn up towards the abdomen; then apply both hands on the tumor with *gentle*, but gradually increasing pressure; or grasp the tumor *gently*, but *steadily*, with one hand, while with the fingers of the other you endeavor to *knead* or push up the parts nearest the ring in the groin, applying the pressure in the same course the parts have taken in their descent. If this fail, seize the tumor between the finger and thumb of the *left* hand, close to where it enters the abdomen, and carry them down with a moderate pressure, so as to dislodge any excrement which may be there, while with the right you endeavor to push in the bowel. If you cannot succeed, after two or three attempts, *etherize* the patient; or, if you have no ether at hand, place him in a warm bath for a time, and try again.

Cold applied to the tumor, by means of pounded ice, snow, or very cold water, will often, by its contracting effect, aid us in reducing a strangulated hernia. Raising the patient's hips considerably higher than his head, so that the contents of the abdomen may gravitate towards the diaphragm, will usually aid us very much in our efforts to return the bowels. If, after making all proper efforts to relieve the patient, we are unsuccessful, nothing but an operation will save the patient, and even that may not if delayed too long.

CHAPTER II.

REMOVAL OF FOREIGN BODIES, BLOOD-LETTING, &c.

REMOVAL OF FOREIGN BODIES FROM THE THROAT.

Fish-bones, pins, &c., occasionally stick in the throat, and cause much annoyance. The moment an accident of this kind occurs, desire the patient to be perfectly quiet, open his mouth, and look into it. If you can see the obstruction, endeavor to seize it with your finger and thumb, or a slender pair of forceps. If it cannot be removed in this way, and is not of a nature to do injury in the stomach, push it down with a flexible round piece of whalebone, the end of which is neatly covered with a roll of linen. If the obstruction be a slight affair, but one which cannot be reached easily, swallowing some pieces of dry bread or cracker may take it down. In some cases an emetic will cause it to be thrown out.

Persons are sometimes choked by attempting to swallow a large or half-chewed mouthful. If, on opening the mouth, the source of choking can be seen, remove by the fingers or forceps, or push it down into the stomach if possible. Sometimes it may be washed down with a draught of water. Money, buttons, and other articles are sometimes swallowed, and usually pass through the bowels without difficulty. If the coin be copper, avoid taking vinegar or other acids until it has passed the bowels.

Foreign bodies sometimes escape into the *windpipe* when a person is speaking or laughing with food or other substances in the mouth. In such cases a violent and distressing fit of coughing results, during which small, light articles are frequently expelled, and the trouble is over.

TREATMENT. Place the patient's head downwards, or considerably lower than the body, and then slap him smartly across the back several times to increase the expulsive efforts of the lungs. If the article is not quickly removed, send for a surgeon without delay, for an operation may be required to save the patient.

REMOVAL OF FOREIGN BODIES FROM THE NOSE AND EARS.

Children often amuse themselves with poking things with which they are at play into their noses and ears. If peas, beans, or any other seed or substance be thrust in, which swell as they moisten, no time should be lost in getting them out; otherwise, as they enlarge, they become more firmly fixed and more difficult to be removed, are attended with greater pain and suffering, and may even cause dangerous consequences. Hard substances, as shells, beads, &c., which remain unchanged in bulk by moisture, are of less consequence, and may remain some days without causing much inconvenience, and often drop out of themselves.

If the pea or shell be *in the nostril*, the child should be made to draw his breath in deeply, and then stopping the other nostril with the finger, and closing the mouth firmly, to blow forcibly through that side of the nose in which the substance is lodged. If this be done soon after the accident, two or three efforts usually shoot the unwelcome lodger out. But if this does not succeed, the nose must be tightly nipped with the finger and thumb, above the pea or shell, so as to prevent it getting farther in, and then the eyed end of a bodkin or probe, having been a little bent, must be gently insinuated between the bottom of the nose and the substance, and when introduced sufficiently far, must be gently

used as a hook to bring it down. Pushing it back into the throat should not be tried, as not unfrequently so doing only fixes it the more firmly. If a physician be within reach, it is better at once, if the substances cannot be snorted or blown out, to take the child to him, as he will be able to manage the matter better and more readily the earlier he is applied to. If any swellable body, as a pea or bean, has been lodged in the ear, do not go to syringing with water or any other fluid, as it will excite the substance to swell, and increase the mischief. In such cases, if the body has passed out of sight, a physician should be immediately sent for.

If a hard body, as a shell, or button, or bead, be pushed into the ear, syringing with water may be used with advantage, as, if the water pass in any way between the hard body and the ear-drum, it will not unfrequently force it out. The head should be laid down, so that the ear, in which the hard body is, be undermost, and in this position the water should be thrown up with the syringe, the nozzle of which, however, must be held at some little distance, and not put into the pipe of the ear, or it will prevent the hard body dropping out. Whilst the head is thus laid, it should be shaken a little, which may cause the offender to drop out.

Never poke about in the ear if there be doubt of anything being there lodged. Unless it can be distinctly seen, this should always be avoided.

Insects sometimes, though rarely, get into the ear. The best method to dislodge them is to wash or syringe out the ear with warm water, or salt and water, or to fill it with sweet oil or glycerine, which will kill the animal, and cause it to float out. The ears sometimes become loaded with dry wax, causing partial deafness, and odd noises, &c., to be heard. Syringing once or twice a day with simple warm water will generally answer. A little warm glycerine may be dropped in every night to soften the wax.

REMOVAL OF FOREIGN BODIES FROM THE EYE.

Things of various kinds occasionally *get into the eye*, as it is commonly called, not meaning thereby that they get into the eyeball itself, though this indeed sometimes happens, but only that they get within the eyelids, between them and the ball. A small fly may dash in, or road sand, small pieces of straw or soot, or any other small body may be driven in by a gust of wind; or, whilst grinding a steel instrument, a delicate fragment may be thrown up by the wheel into the eye. If the body be soft, or if it have not been darted in with much violence, it rarely fixes on the globe, but is quickly transferred from it to the inside of one of the lids, generally of the upper, so that it is not at first perceived, and its presence only supposed in consequence of the uneasy feeling and the free discharge of tears, which are secreted in great abundance, as a natural effort to wash the offender out. If, however, it be driven with violence, it beds itself more or less deeply and firmly in the surface of the eyeball, and can then be seen as well as felt when the lids are opened.

Treatment. The most simple plan is to keep the eyelids closed, and then gently pass the finger over them from the outer to the inner corner. After thus passing the finger a few times, the little substance is often found at the inner corner of the eye, and may be wiped out with the handkerchief or with the finger.

Another and very good method, if the lodgment be either on the eyeball or within the upper lid, is to take hold of the eyelashes of the upper lid and lift it completely over the lower, the lashes of which, being thus interposed between the upper lid and the eyeball, serve as a delicate brush, and entangling the substance bring it out with them, when the upper lid recovers its place. Should neither of these methods, however, produce any relief; if the uneasiness and watering of the eye continue, then it is better to obtain the

precise situation of the intruder so as to act more efficiently on it. For this purpose, with the finger gently draw down the lower eyelid, which will completely expose its inner surface, and the whole lower part of the eyeball, both of which are to be examined.

To look at the upper lid, which requires being turned inside out, is more difficult, but may be done with gentleness, and a little dexterity, in the following way: With the fingers and thumb of one hand take hold of the lashes of the upper eyelid, and pull it forward from the globe; then, with the other, lay the blunt end of a bodkin, knitting needle, probe, or pen-handle upon its outer surface, and press down gently, at the same time lifting the lashes towards the eyebrow. This turns the inside of the lid out, and it may then be well examined.

If the little substance be found unfixed, wrap a silk handkerchief over the finger, and brush it away. A camel's-hair brush is often of service in brushing small, loose objects from the eye.

If a piece of steel, or other substance, is sticking in the eyeball, so that it cannot be brushed out by gentle means, apply to a physician without delay.

To remove particles of lime or mortar, the lids should be everted, and the eye be well syringed or sponged with weak vinegar and water, or with oil, or with pure water if neither be at hand.

For injuries with acids or alkalies, free washing or syringing with water is the readiest remedy.

BLOOD-LETTING.

To reduce excessive inflammation, whether arising from disease or wounds, blood-letting often proves beneficial. At the present day general blood-letting is seldom resorted to — cupping or leeching answering as well or better in most cases.

GENERAL BLOOD-LETTING.

If we take blood from a vein at the bend of the arm, or on the top of the foot, it is termed *general* blood-letting. When plethoric individuals are attacked with apoplexy or pleurisy, it may prove beneficial.

How to bleed from the foot. Tie a piece of tape tightly round the leg immediately below the knee; soon after which the veins on the top of the foot will swell up; if they do not, the foot may be put into hot water, which will very soon cause them to swell sufficiently. Of these select the largest, which may be opened by pushing the lancet obliquely into the vein, and making it cut its way directly outwards. When the quantity of blood desired has been obtained, take off the tape, and let the patient lie down at full length, and close the wound with a pad of lint and a strip of adhesive plaster.

From the bend of the arm. Tie a handkerchief, tape, or cord around the arm, at least two inches above the projections of the elbow joint, and then feel for the pulse at the wrist. If it cannot be felt, the bandage is too tight, and must be relaxed a little. Select the most prominent vein, and feel with the tip of your finger if an artery lies near it. If you feel one beating so close to it that you are afraid of wounding it, choose another. Having selected the vein, prevent it rolling about by making pressure on it by the left hand thumb, and taking the lancet between the fingers and thumb of the right hand, and holding it in a slanting direction, make a free incision into the vein; this done, if the blood does not flow freely, put into the patient's hand a ball, or walking-stick, and direct him to grasp it firmly. Having taken a sufficient quantity of blood, remove the bandage, and place a compress of lint on the wound, and secure it by a strip of adhesive plaster. I would not advise any one to attempt bleeding in the arm without having been properly instructed, for there is always danger, to an unpractised

person, of not merely opening a vein, but also of wounding an artery, which is a very serious, and sometimes a fatal accident.

LOCAL BLOOD-LETTING.

The taking of blood directly from or near an inflamed part is termed *local blood-letting;* and at the present day this is resorted to very much oftener than general blood-letting. It is performed by *leeching* or *cupping* the part. In cities, and wherever leeches can be obtained, they are used oftener than cups, but where they cannot be had, cups are used instead.

LEECHES.

Leeches should be kept in a cool place, in a glass or earthen vessel, partly filled with water (which should be changed daily), and be covered with coarse strainer cloth.

To apply leeches. Wash the part very clean. Put the leech in a clean wineglass, or small bottle, and keep it confined over the spot for a few moments. If it will not bite, scratch or prick the skin until a little blood exudes. After the leeches have filled and dropped off, if you wish to encourage the bleeding, apply warm fomentations.

In applying leeches avoid the seats of large veins.

To check bleeding from leech-bites. It sometimes happens that bleeding from the leech-bites continues after we have taken a sufficient quantity of blood. In these cases a bit of cotton wool may be wet, and then rolled in tannin or powdered matico leaves, and bound upon the part. A very fine point of lunar caustic inserted in the wound will generally check the bleeding. The solution of persulphate of iron is excellent.

CUPPING.

This operation takes its name from the small glasses, shaped like a bell or cup, which are used in performing it. Cups should never be applied directly to an inflamed portion of skin, but in the neighborhood of it. As kept in the

shops, cupping glasses are generally in sets, with a small exhausting pump which fits a pipe on the top of each cup. Applying the margin of a cup to the skin, the air may be pumped out through the tube, and the atmospheric pressure on the parts around will cause the portion of skin covered by the cup to swell up into it, becoming red and turgid. There is a stop-cock on each tube, by closing which the cup may be left adhering to the surface. To obtain a flow of blood, remove the cup by turning the stop-cock, and allowing the air to rush in. Then scarify the swollen area of skin, either with a lancet or scarificator, and reapply the cup. This may be done as often as seems desirable.

About an ounce of blood is generally drawn by each cup; but the amount will vary somewhat, according to the vascularity of the part, the size of the glasses used, the state of the blood, &c. It is not very often necessary to apply any dressing after cupping; but if the skin is tender, it may be protected by a piece of lint spread with cerate, or by a water-dressing, warm or cold, according to the feelings of the patient.

In some cases the cups are used without scarifying the part; it is then called *dry cupping*.

DIRECTIONS FOR PASSING CATHETERS.

Take the penis of the patient near its head between the fingers and thumb of your left hand (standing beside him), while with your right you introduce the point of the instrument into the urinary passage, its convex side towards the knees; while you push the catheter down the urethra, endeavor to draw up the penis on it. When you first introduce it, the handle will of course be near the abdomen of the patient, and as it descends will be thrown farther from it, until it enters the bladder, which will be known by the flow of the urine. If you do not readily succeed in passing

it, vary your position, or that of the patient, or let the patient try it himself. Always remember it is by *humoring* the instrument, and not by violence, that you can succeed. The *female cathether* is shorter and much less curved than the male, and is usually passed without much difficulty when the patient is lying down.

BOUGIES AND SOUNDS are passed in the same manner as catheters.

CHAPTER III.

ON SOME DISEASES OF THE EYE AND EAR.

NEAR SIGHT. (*Myopia.*)

This arises from too great a convexity of the cornea, or of the crystalline lens, or both. This affection is usually congenital. Short-sighted people generally have prominent eyes.

Treatment. In confirmed cases, double concave glasses or spectacles must be worn; single eye-glasses are bad. The spectacles had better not be worn constantly, but only when especially required.

LONG SIGHT. (*Presbyopia.*)

This is one of the earliest indications of advancing years. It is caused by changes in the eye, not necessary to mention here.

Double convex spectacles should be used. Where the sight is *weak*, relief will often be obtained by wearing spectacles with glasses of a neutral tint.

WEAKNESS OF VISION. (*Asthenopia.*)

This is a common affection, especially among the poor and ill fed working people of large cities, who lead sedentary

lives. Children who are confined too closely to their books also suffer from it.

TREATMENT. Tonics, good nourishing food, relaxation from toil, and exercise in the open air.

INFLAMMATION OF THE EYE. (*Ophthalmia.*)

Slight inflammation of the membrane covering the globe of the eye, and lining the insides of the eyelids, is not unfrequently occurring when the eye has been exposed to a current of cold air. The eye waters, feels as if sand were in it; the white part is reddened, and soon after a little matter is formed, and on waking in the morning the eyelids are felt glued together. Such is the common condition of a slight degree of ophthalmia, which, however, may run on and become so severe that the eye may be destroyed by it very speedily.

TREATMENT. When in the mild form I have mentioned, it may usually be remedied by the following eye wash, a little of which should be dropped into it three or four times a day: —

Take of Sulphate of Zinc, . . . 4 grains.
Rose Water, or pure Water, . 2 ounces.
Mix.

Should the inflammation be very severe, and the eye painful, a leech may be applied about an inch from the outer angle of the eye. A small blister, about an inch square, may be applied to the same locality when leeches cannot be obtained. A green shade to protect the eye from light will also be beneficial.

STYE. (*Hordeolum.*)

This is a small, painful boil, at the edge of the eyelid.

TREATMENT. Bathe frequently with warm water, or a

warm decoction of poppy heads or leaves. At night a small flaxseed poultice may be applied. After it has burst, the following ointment may be smeared along the edge of the eyelid, every night, on going to bed: —

Take of Citrine Ointment, . . . 2 drachms.
Spermaceti Ointment, . . 4 drachms.

Mix well together.

The bowels should be kept open by laxatives, for a few days, and afterwards tonics and alteratives given, as the complaint arises in debilitated constitutions. The syrup of iodide of iron is a good preparation. An adult may take twenty drops, in water, three times a day. Obstinate and serious diseases of the eye always require the services of a physician, or oculist.

DIMNESS OF SIGHT. (*Amaurosis.*)

Symptoms. The sight is impaired by degrees; at times it is more impaired than at others; objects may appear double, crooked, disfigured, or discolored. Sometimes black spots seem floating before the eyes.

Causes. Long-continued exertion of the eye on minute objects; exposure to glaring light, and anything which overtaxes the eye.

Treatment. Avoid the causes which have produced it, and consult a physician as soon as convenient. If you tamper much with the eye, you may make matters worse instead of better.

CATARACT.

This is a disease affecting the crystalline lens of the eye, rendering it opaque.

Symptoms. On looking into the eye, there will be seen, behind the pupil, an opaque body of a gray or dead-white

color. The patient usually gives, as its history, that his vision has become gradually impaired.

TREATMENT. Apply to an oculist. Nothing but an operation will restore sight.

SQUINTING. (*Strabismus.*)

SQUINTING consists either in an over-action or paralysis of some of the muscles of the eyeballs.

CAUSES. Squinting is frequently congenital. Sometimes it is the result of imitation. It may be caused by some irritation of the stomach or bowels. Disturbance of the brain is another cause, especially when the squint does not come until adult age.

TREATMENT. If caused by any intestinal irritation, it may be removed by purgatives, alteratives, or anthelmintics. In other cases it can only be cured by division of the proper muscle or muscles, for which apply to an oculist.

EARACHE. (*Otalgia.*)

This may be a symptom of inflammation of the ear, or of the presence of foreign bodies, or of inflammation of the tonsils, or of derangement of the stomach, or of rheumatism affecting the head, &c.; or it may be true *neuralgia* of the ear. When arising from neuralgia, the pain is most severe at the commencement, is unattended by fever, and often disappears suddenly. When arising from inflammation, it increases in severity, and is attended by fever.

TREATMENT. If this trouble arises from foreign bodies in the ear, they should be removed. If from inflammation, treat the patient for that disease. When the affection is neuralgic, a mild cathartic and a blister behind the ear,

will do good. The following mixture often proves serviceable: —

Take of Glycerine, ... 2 drachms.
Laudanum, ... 2 drachms.

Mix. Drop a little into the ear; also wet a little cotton wool with the same, and press it into the ear, and let it remain for a few hours. If the patient has a carious tooth causing the trouble, it must be removed.

INFLAMMATION OF THE EAR. (*Otitis.*)

Inflammation of the ear may affect the external and internal ear at the same time, or it may be confined to either.

External otitis, or inflammation of the membrane lining the external passage to the tympanum or drum of the ear, is at first characterized by dryness, itching, and heat of the part, gradually increasing to a dull aching, and eventually to an acute pain, generally increased at night, causing great agony, sleeplessness, fever, and even delirium. The lining of the passage is swollen, dry, and pinkish; in a short time a muco-purulent or purulent discharge takes place, and relief is then experienced.

Internal otitis, or inflammation of the lining membrane of the cavity of the tympanum, is a most severe disease; and is generally combined with inflammation of the *membrana tympani*. Though frequently a disease of youth, it may occur at any time of life; cold is a frequent cause of it, especially in debilitated or scrofulous subjects. It commences with violent headache, followed by intense, acute, gradually increasing pain in the ear, and loud or beating noises. After a short time, a sense of bursting or distention in the ear is experienced. The eyes become

injected, the countenance anxious, the skin hot, pulse frequent, and the functions of the kidneys and bowels disordered. Delirium is often present, or, in children, convulsions. Paralysis of the face may occur. The disease terminates in one of three ways: either by resolution; or by suppuration, the pent-up pus bursting through the drum of the ear, and so discharging itself; or by the inflammatory process spreading to other parts.

TREATMENT. The treatment of both forms of inflammation of the ear requires caution. The bowels should be kept open, perspiration promoted, and the patient should be kept quiet in bed. If there be much fever, R. 21 may be administered. Hot fomentations and poultices to the ear will be found soothing. When there is much suffering, Dover's powder or laudanum must be given in proper doses. Unfortunately the drum of the ear (*tympanum*) sometimes becomes ruptured. Persons suffering from this disease should consult a physician as soon as possible.

DISCHARGE FROM THE EAR. (*Otorrhœa.*)

This is only a symptom of certain diseases of the ear, as of inflammation, polypus, granulations on the surface of the *membrana tympani*, &c. It occurs very frequently, however, without any appreciable cause, in young children, about the time of teething; or on the subsidence of measles or scarlet fever, especially in scrofulous subjects. Under appropriate treatment the discharge usually ceases in a short time; but occasionally it becomes chronic, in which case it may continue for years, leading, in the course of time, to disease of the surrounding parts.

TREATMENT. Syringe the ear well with warm water, and then examine carefully the diseased surface. If the discharge be not severe, and no cause — as polypus, &c., — be

found to account for it, a cure may often be effected by daily dropping into the ear a little of the following preparation: —

Take of Sulphate of Zinc,	. . .	4 grains.
Glycerine,	. . . .	2 drachms.
Rose water,	. . . .	14 drachms.

Mix.

When this fails, the surface of the canal should be painted with a solution of nitrate of silver (six grains to an ounce of water), by means of a camel's-hair brush. This must be repeated every second day, the ear being frequently syringed, in the interval, with warm water. The application of glycerine will also be beneficial after the syringing. Where the patient's general health is bad, tonics and change of air will be necessary. When occurring in scrofulous subjects, iodine, cod-liver oil, &c., may be taken with benefit.

CHAPTER IV.

THE VENEREAL DISEASES, &c.

GONORRHŒA AND SYPHILIS.

Gonorrhœa and syphilis were for a long period considered identical; but at the present day, the more enlightened members of the medical profession agree in the opinion that they are distinct diseases; yet gonorrhœa is contracted under circumstances identical with those that give rise to syphilis.

Gonorrhœa, blenorrhagia, clap, and urethritis, are terms used synonymously, and are employed somewhat indiscriminately, to denote inflammation of the urethra and other portions of the genito-urinary passages, attended with contagious muco-purulent discharges, and scalding pain in micturition, consequent upon impure sexual intercourse. The discharge at first may consist almost entirely of mucus, but in a few hours it will be found to contain pus-globules, which increase in relative proportion, until the disease reaches its height.

When the disease begins to decline, the morbid secretion is again changed, and is once more characterized by a preponderance of mucus, until at last it becomes nearly transparent; thus indicating that the pus-globules, upon which its contagious properties are supposed to depend, have ceased to be formed.

Gonorrhœa is usually looked upon as a purely local disease of the genital organs; there are some surgeons, however, who consider that it occasionally assumes a constitu-

tional character. In the early stage it is probably a strictly local affection; yet there is a particular train of phenomena occasionally following it, of a characteristic nature, which can scarcely be looked upon in any other light than as being the results of constitutional infection; the more so, as they are very apt to occur in some individuals who never have gonorrhœa without the disease being followed by these sequences, whilst others are altogether exempt from them.

The parts which are secondarily affected, are chiefly the fibrous tissues, the mucous and cutaneous surfaces.

The affections of the fibrous tissue give rise to rheumatism (called gonorrhœal rheumatism), and the peculiar forms of inflammation of the testicle, and of the sclerotic coat of the eye.

The affection of the mucous membrane shows itself in specific inflammation of the throat and of the eyes. The skin may become the seat of certain eruptions. The occurrence of these various affections, assuming a specific type, tends to show that the disease impresses the constitution in some peculiar manner, analogous to, though in a minor degree, and with less certainty than syphilis.

Causes. True gonorrhœa is a specific and highly contagious affection, arising in all cases from the application to the parts which it attacks of a peculiar animal poison, generated by impure or indiscriminate sexual intercourse.

A *spurious*, or *false gonorrhœa*, of a non-specific character, may arise from other causes. Sexual intercourse with a female during her menstrual period, or with one who is badly afflicted with leucorrhœa (whites), may cause a slight catarrhal discharge, possessing more or less acrid properties, but specifically different in its nature from the malignant or contagious gonorrhœa.

Experiments and examinations have been made with a view to detect some characteristic differences between the *true gonorrhœal* discharge, and some other discharges from the genital organs, but hitherto with no success. But a phy-

sician, who understands well the nature of this disease, and who has had experience in such cases, can hardly fail to satisfy his own mind as to the true cause of any given case of gonorrhœa.

Symptoms. The symptoms of gonorrhœa may be conveniently divided into three stages. In the *first stage*, the patient experiences a slight itching about the orifice of the urethra, accompanied, perhaps, with a slight watery, or thin whitish discharge. This stage usually comes on in from three to five days; although it may occur in a few hours, or not until ten or twelve days after exposure.

If the disease is not checked at once, it passes, after a few days, into the *second*, or *acute inflammatory stage*. The discharge now becomes abundant, thick, and of a greenish-yellow color; there is great pain in urinating, with considerable heat and smarting; the urine flows in a diminished stream, but is passed with increased frequency; the urethra becomes swollen and cord-like to the touch; the whole penis, in fact, becomes generally red and swollen. During this stage there is usually considerable constitutional disturbance, restlessness, and fever. It is in this stage that Chordee occurs, which is an intensely painful erection of the penis, during which it is bent like a bow, with the convexity upwards. This stage usually continues a week or two, when the *third stage*, that of *chronic inflammation*, sets in. During this stage of the affection the inflammatory symptoms gradually subside, but a thin muco-purulent discharge continues, with some degree of heat and irritation about the urethra, and occasional smarting in passing water. Under proper treatment, this usually subsides in two or three weeks more, and the patient is cured. But if neglected, or improperly treated, or in certain constitutions, it may last many months or years, degenerating into a *gleet*, which in some cases is difficult to cure; although I believe all, or nearly all cases, will yield to proper treatment and time.

The inflammatory symptoms of gonorrhœa subside in pro-

portion to the continuance of the affection, but its specific and contagious character may or may not exist so long as the discharge continues. This disease is most severe, continues longer, and is more difficult of cure in first attacks, and in young and plethoric subjects. In scrofulous constitutions, and in constitutions where there is a rheumatic or gouty tendency, it often proves obstinate, requiring in both patient and physician much patience and *perseverence* in treatment.

Treatment. In the majority of cases, in the male subject, the anterior portion of the urethra is the primary seat of gonorrhœa. From this point the disease may extend, until the whole length of the canal is implicated, unless an effectual check be put to it by the *abortive* treatment. If the patient is seen during the *first stage*, before inflammatory symptoms have come on, that is, before the patient complains of scalding or burning pain in passing water, the following injection, used every fourth hour, until the discharge is rendered thin and bloody, which is the ordinary effect of the injection, *may* lead to a speedy cure.

Take of Crystals of Nitrate of Silver, . 2 grains.
Distilled Water, ... 8 ounces.
Mix.

After discontinuing the nitrate of silver injection, one composed of eight grains of acetate of lead and four ounces of pure water, may be used night and morning for five or six days.

The patient should take a Rochelle powder every morning, and avoid exercise, liquors, salt, spice, coffee, and stimulants of every kind.

By pursuing the course of treatment here laid down, at the *very commencement* of the disease, some cases, but not all, may be cut short, which would otherwise run the usual course.

But, unfortunately, patients are seldom seen before the

second or *inflammatory stage* is reached; it is the burning pain in passing water, the profuse discharge from the urethra, and the inflammation and swelling of the penis, which causes the sufferer to seek the advice of a physician; and then it is too late to make use of the measures just laid down for the first stage.

If the disease has proceeded unchecked to the second stage, which is usually reached in one to three days, the patient should be confined to the house for a few days, if his avocations permit it; but if they do not, he must avoid much walking, lifting, horseback-exercise, and everything which would excite the system.

The penis and scrotum should be supported by a suspensory bandage, and be well fomented, night and morning, with water as warm as can be conveniently borne. The diet must be light and moderate; meats, liquors, and stimulants of every kind being avoided. A cooling purgative, such as Epsom salts, or a Rochelle powder, may be taken every second day. Flaxseed tea, or gum arabic water, taken as a common drink, will prove serviceable. The following mixture may also be used with benefit: —

Take of Bicarbonate of Potassa,	6 drachms.
Pure Water,	3½ ounces.
Tincture of Opium,	½ ounce.
Mucilage of Gum Arabic,	2 ounces.
Syrup of Orange Peel,	2 ounces.

Mix. One tablespoonful may be taken in a little water, three or four times a day. After pursuing this course of treatment for a few days, the inflammation and fever will usually subside, and then R. 17, 18, or 19 may be taken for a week or ten days; when, if the disease is obstinate, an injection (R. 95, 96, or 97) may be used for a few days.

Chordee, or painful erection of the penis, with twist of the organ, coming on at night, is a distressing and troublesome symptom, which will require attention in some cases of

gonorrhœa; and to prevent which, a pill composed of one grain of extract of opium and three of camphor, may be taken at bed-time. Lupulin, taken in drachm doses, on going to bed, will answer the same purpose.

Cold water, freely applied to the part during the painful erection, will usually give immediate relief.

BALANITIS.

Balanitis is an inflammation of the surface of the glans penis, and inside of the prepuce, accompanied with a profuse purulent discharge, and more or less excoriation of the parts.

Causes. The same that give rise to gonorrhœa. It may occur either with or without discharge from the urethra.

A *spurious* balanitis may also occur in men with long prepuce, in consequence of the acrid secretions of the part being too long retained; and it may occur in some persons from disordered health.

Treatment. Soak the part well in warm water, night and morning, the prepuce being fully drawn back. The following wash may also be applied two or three times a day: —

Take of Acetate of Lead, ...	20 grains.
Glycerine, ...	1 ounce.
Rose Water, ...	7 ounces.

Mix.

If the trouble does not disappear in a few days, dissolve ten grains of the crystals of nitrate of silver in one ounce of water, and with a camel's-hair brush, apply it to the diseased surface once a day, for two or three days; after which resume the use of the lead wash, and continue it until well.

GONORRHŒAL INFLAMMATION OF THE EYES.

This is not a very common occurrence, but when it does happen, is of a dangerous character, running its course very

rapidly, and unless treatment affords speedy relief, the consequences are liable to be disastrous to vision; therefore, I would advise all who may be so unfortunate as to have this affection, to apply at once to some competent physician for treatment.

GONORRHŒAL RHEUMATISM.

This usually occurs in young and florid persons. Sometimes it attacks the muscular structures, and in other cases the joints are affected. It is in some cases an obstinate and painful affection.

TREATMENT. The same as in common rheumatism. Apply to a physician as soon as convenient.

GLEET, OR CHRONIC GONORRHŒA.

When from neglect, improper treatment, or constitutional causes, the *third* or *declining stage* of gonorrhœa is of long duration, a mucous or muco-purulent discharge from the urethra continuing, which resists treatment, a person is said to have a *gleet*. As this is often an obstinate affection, the sufferer should seek the aid of a reliable physician. Avoid quacks and the prescriptions of non-medical friends, for they may lead you into further trouble.

GONORRHŒA IN THE FEMALE.

Under ordinary circumstances, this disease does not assume so severe a type in the female as in the male; nevertheless, it is, in all its essential features, nearly as difficult to manage in the one as in the other. The disease in the female is often confined to the vulva and vagina; and, in such cases, the preparations of balsam of copaiba and cubebs, which are so useful when there is inflammation of the urethra, exert but little influence. If the patient is troubled with heat and scalding in passing water, such preparations will prove beneficial. During the acute stage, the patient should rest in the recumbent posture; and the parts may be fre-

quently washed and syringed with warm water. One drachm of acetate of lead, dissolved in one pint of water, forms a very good wash and injection, which may be used three times a day, immediately after the free use of warm water.

A mild cathartic, as a Rochelle powder, or small dose of Epsom salts, may be taken two or three times a week, if necessary. A warm hip bath taken every night, on retiring, will also aid in reducing the inflammatory symptoms. The patient may make use of the same diet and drinks as recommended for the male; and if the disease affects the urethra, and there is much burning pain in passing water, the mixtures recommended for the other sex will prove serviceable.

After the acute symptoms have subsided, if the discharge from the vagina continues, R. 99 or 147 may be used as an injection two or three times a day. In very obstinate cases, R. 101 may be used once or twice a day for a few days. The injections should be taken when in the recumbent posture, and to do good, they must be retained ten to fifteen minutes. When the disease begins to subside, treatment must be *gradually* discontinued.

SYPHILIS.

Syphilis, like gonorrhœa, is the effect of a certain morbid poison, generated, and in most cases communicated, by promiscuous sexual intercourse.

It presents three classes of symptoms: — *primary*, *secondary*, and *tertiary*. The *primary* symptoms are ulceration of the parts to which the morbid poison is applied, and inflammation of the neighboring lymphatics, constituting *bubo*.

To *secondary* symptoms are referred certain affections of the skin — syphilitic eruptions, and ulcerations, &c., about the throat and mouth, falling off of the hair, affections of the eyes, &c. Secondary symptoms usually manifest themselves about the sixth week after the primary symptoms; sometimes not for months or even years. Secondary symptoms

are not inoculable, but may be transmitted by hereditary descent.

The *tertiary* symptoms consist of certain changes which take place in the subcutaneous or submucous cellular tissue, in the testicles, in the fibrous and bony textures, and in the deep-seated organs, as the lungs, liver, heart, brain, kidneys, &c. These symptoms seldom occur before the sixth month following the appearance of the primary ulcer, and they may not for years. Tertiary symptoms are not only not inoculable, but cannot be transmitted by hereditary descent under their peculiar type, although in consequence of a kind of degeneration or modification of the syphilitic virus, they are probably one of the most fruitful sources of scrofula.

ORIGIN AND HISTORY.

With regard to the *origin* of venereal diseases there is much uncertainty, and it is difficult to arrive at a satisfactory conclusion on the subject. But it is now believed by many enlightened medical men, that wherever prostitution is foul and unclean, restricted to few women amongst crowds of men, that there the infection will be generated, which afterwards spreads through society at large.

With regard to the *history* of these diseases, I may say that most surgeons regard them as having been known from the earliest ages. Some passages in the Old Testament seem to point to these diseases; and syphilis appears to have been known in China almost from time immemorial.

Whilst we have very good proof that syphilis did exist from the earliest ages, we have positive evidence that it received increased virulence between the years 1494 and 1496, whilst the French army, under Charles VIII., was besieging Naples. During that period this terrible disease sprung up and proved rebellious to every known method of treatment; attacking the high and low, rich and poor; sparing neither age nor sex.

This increased virulence was probably the consequence of

war, famine, and the intercourse of foreigners, — circumstances which in all times have produced an aggravated type of the disease.

PRIMARY SYPHILIS.

Primary syphilis is characterized by ulcers or chancres; their most frequent location being the genitals; and in men they are more frequently than otherwise found on the inner surface of the prepuce, or the furrow between the prepuce and the corona glandis, or the angle by the frenum; and these parts should always be carefully searched for ulcers. Chancres may be caused by the application of the syphilitic poison to any surface, mucous or cutaneous, entire, wounded, or ulcerated.

The time at which venereal sores or chancres appear, is usually from the third to the tenth day after infection; but it is probable that the syphilitic poison operates progressively from the first moment of its application, although no ulcer may be found for some days after exposure.

The varieties presented by chancres may be described under the following denominations:—

1. The *simple chancre.*
2. The *indurated* or *Hunterian chancre.*
3. The *phagedenic chancre.*
4. The *sloughing chancre.*

The simple chancre is the one most commonly met with, and consists of one or more small sores, of a shallow character, resembling rather an abrasion with sharp cut edges, somewhat circular in shape, and having a tawny, grayish, or yellowish surface, with a narrow, red areola around the edge. In some cases chancres are attended with heat and itching. Their surface, in some instances, becomes covered with fungous granulations, of considerable size, from which they are termed *fungating sores.* In other cases they are irritable, becoming very sensitive, with a tendency to spread, and having around them an areola of a dusky-red hue. It sometimes

happens that these chancres are attended by much general inflammation and swelling of the penis.

The *indurated* or *Hunterian chancre*, is much less frequently met with than the variety just described.

The general characteristic of this form of chancre is the hardness or induration of the edges and base; and this character is met with from the very first. Any chancre, during its progress, may become hardened from undue inflammation, or from being otherwise improperly inflamed.

The Hunterian chancre is usually found on the common integument, or on the glans penis. After the fifth or sixth day of its existence, if the cuticle, and dried pus which adheres to it, be removed, there is found an ulcer, resting on a hardened base; its depth equal to the whole thickness of the true skin, its edges seeming as if cleanly cut out with a punch. The ulcer feels to the finger like a little cup of cartilage or gristle set in flesh.

Phagedenic chancres are very rapid in their progress, and extremely painful. In shape they are irregular, with a yellow surface, dotted with red streaks; the edges are ragged or undermined, and the discharge is copious, thin, and sanious. These ulcers sometimes eat deeply into the substance of the penis; at other times they undermine the skin extensively; but they generally spread widely, not deeply.

The *sloughing chancre* is a combination of rapidly spreading and destructive gangrene with the syphilitic poison. It usually affects the prepuce and glans, giving rise to thick, black, soft, and pultaceous sloughs.

Urethral chancre. A chancre may sometimes be found just within the orifice of the urethra, and may be seen on pressing open its lips, in the form of a small sloughy sore, which occasionally creeps out upon the glans.

Syphilitic ulcers in the female are usually situated just within the external organs of generation, very rarely on the lining membrane of the vagina, but sometimes on the neck of the uterus; hence it is impossible to pronounce a woman free

from syphilis, without examining these parts by means of a speculum. Chancres do not cause so much distress and annoyance, at first, in the female as they do in the male; but they are very slow in healing, especially when interfered with by the urine.

AFFECTIONS THAT MAY BE MISTAKEN FOR SYPHILIS.

External gonorrhœa, or balanitis, herpes of the prepuce, &c., may sometimes be mistaken for syphilis.

The usual means of distinguishing a syphilitic ulcer are, that it is found on the genital organs; that it has made its appearance subsequent to a suspicious connection; that it is circular in form; and, above all, that if treated by simple applications only, it is very difficult to heal. There is also the test of *inoculation*.

TREATMENT OF PRIMARY SYPHILIS.

In the treatment of primary syphilis, the indications are, 1st, to destroy the poisonous ulcer, and heal the wound as soon as possible; 2d, to prevent the occurrence of secondary symptoms. When the patient applies immediately on perceiving the chancre, it should be thoroughly destroyed by the cautious and proper use of *nitric acid*, or the *potassa fusa*. If this is done before the fifth day after inoculation, we may, possibly, prevent constitutional infection taking place from the absorption of the poison into the system. But even though this time may have been considerably passed before the chancre is seen, it is well to destroy the ulcerating and poisonous surface, from which continual absorption must necessarily be going on.

The acid may be applied to the sore by means of a glass rod, or piece of wood shaped like a pen-handle. Only enough of the acid to well wet the surface of the ulcer should be used; and after it has been on a few seconds, a liberal supply of water must be poured upon the part, to wash away the superfluous acid. The *potassa fusa* is sometimes used,

but is much less managable, and not more efficacious than the acid. The nitrate of silver, — lunar caustic, — formerly much used for destroying chancres, is too weak to secure the effect it is intended to accomplish; being liable to irritate and inflame, and not to readily destroy the chancrous surface, thus necessitating repeated and painful applications.

The acid may be applied at any time during the continuance of the *specific* condition of the ulcer; but it should not be reapplied when once this has been destroyed.

To promote the healing of the ulcer, after the application of the caustic, the following wash may be applied three or four times a day:

Take of Solution of Subacetate of Lead, .	1 drachm.
Glycerine, ...	3 drachms.
Water, ...	3½ ounces.

Mix.

The "Black Wash" (R. 112) is also excellent. These are the means which generally prove most useful in the local treatment of simple and indurated chancres.

Phagedenic chancres require different management; the nitric acid cannot be borne if there is much irritability about the ulcer. A good application in such cases is the following opiate and antiseptic lotion: —

Take of Tincture of Opium, . . .	½ ounce.
Solution of Chloride of Soda, .	½ ounce.
Water, ...	3 ounces.

Mix. Apply three or four times a day.

Sloughing chancres may be treated by the application, at first, of flaxseed or slippery-elm poultices, which may be made by wetting up the ingredient used with the above lotion. When the chancre begins to heal or granulate healthily, it may be dressed in the same way as a common ulcer.

In applying lotions or washes to any form of chancre, a piece of lint soaked in the fluid should be kept constantly ap-

plied between the prepuce and the glans, and in women, between the labia; for unless this be done, irritation and morbid action will be kept up, by the contact of the diseased and inflamed mucous surfaces.

CONSTITUTIONAL TREATMENT OF PRIMARY SYPHILIS.

As it is impossible to say when the absorption of the syphilitic poison into the system takes place, constitutional treatment should be resorted to from the very commencement of the disease; not so much with a view of causing the local ulcer to heal, as to prevent, if possible, constitutional infection. The general treatment of primary syphilis has undergone many changes. At one time mercury was considered a specific against the syphilitic poison; and many celebrated surgeons looked upon the curability of a sore without mercury as a proof that it was not syphilitic. At a later period, however, it was found, by the observations of some army surgeons, that the different forms of primary syphilis were curable without the necessity of administering mercury, or having recourse to any specific treatment whatever. These observations led to the introduction of the *non-mercurial* or *simple* plan of treatment, as it is termed; a mode of practice that at one time was regarded with great favor, and which has been extensively tried. But further observations and experiments have caused a reaction to take place in the minds of most professional men, and mercury is again employed in the treatment of this disease, but more moderately and scientifically, and consequently more successfully, than before.

Formerly, the administration to salivation was deemed the specific for syphilis; and it was not only believed that it had peculiar virtues in counteracting the syphilitic poison, but also that without it every case of syphilis would infallibly go on from bad to worse. The doctrine at the present day, however, is, that every case of syphilis *may* be successfully treated without mercury; and that the too free use of it may

render the disease much worse; that there are some cases which do not admit of its use; but that in proper cases, its moderate and judicious employment more effectually hastens the removal of the existing symptoms, and renders the patient much less liable to have secondary affections than any other course of treatment which has hitherto been pursued.

Mercury is not generally admissible when the chancre is inflamed, irritable, phagedenic, or sloughing; when there is a bubo, suppurating, or about to suppurate; when the patient is feverish; when he has been already broken down by repeated attacks of the disease and by mercury; when he is known to be very easily salivated; or when mercury readily produces sore throat, loss of flesh, night sweats, &c. It should be given with much caution to scrofulous or consumptive persons.

If there are none of these contra-indications, and especially if we have an indurated or hard chancre to deal with, mercury may be given; not because *absolutely* necessary to a cure, but because, as before remarked, experience has proved that no other remedy so effectually hastens the cure of the primary, and lessens the chance of secondary symptoms.

In administering this medicine, our object should be to induce a gentle mercurial action, and to maintain it for a sufficient length of time. The following preparation will be found very efficacious: —

Take of Bichloride of Mercury,	. .	2 grains.
Iodide of Potassium,	. .	½ drachm.
Pure Water,	. . . .	3 ounces.
Syrup of Orange Peel,	. .	1 ounce.

Mix. One teaspoonful may be taken in a gill of water, three times a day, after meals. Recipe 69 will also be found excellent. It makes little difference which is used.

The medicine should be taken only to the extent of producing slight sponginess and soreness of the gums, when it may be omitted for a day or two, or only one dose a day

given; so regulating the quantity taken as to maintain a *gentle* action upon the system, till — if the case progresses favorably — the ulcer has healed, and the hardness of the sore disappeared; which will generally take place in from two to eight weeks.

After the mercurial course has been continued for a sufficient length of time, R. 67 may be taken for three or four weeks.

If we have phagedenic or sloughing chancre to deal with, R. 67 may be used instead of mercury, from the very commencement of the treatment. In cases where there is much debility, R. 62 or 63 will often be found beneficial.

BUBO.

A bubo is an inflamed lymphatic vessel or gland in the groin, leading from a venereal sore. Gonorrhœa, wounds about the feet, or even protracted venereal indulgence may cause inflammation of the glands; but a real syphilitic bubo is the result of absorbed virus. Buboes vary in the rapidity of their development, consequently some are termed acute, others chronic; the former hastening to suppuration, whilst the latter are indolent.

Buboes sometimes arise in cases where no chancre has been observed; and it has been disputed whether the syphilitic virus may be taken up by the lymphatics, and produce a bubo in the groin, without having first caused a chancre. When cases of this kind arise, we must bear in mind that they may be produced by a chancre so small as to have escaped the patient's notice; and that inflammation of the glands in the groin may arise from other causes than the absorption of the syphilitic virus.

Treatment. An acute bubo must be treated as an acute abscess; and the first indication is to produce resolution. This may in some cases be brought about by rest, cathartics,

low diet, leeches, the iodine paint, fomentations, &c.; but if the venereal virus shall have created pus in the interior, leeches, iodine paint, &c., will rather retard the cure. Poultices, and the *early evacuation of the pus*, are then most to be relied on. Blisters, or the iodine paint externally, with iodide of potassium (R. 67) internally, will be found of use in producing the absorption of *chronic* bubo.

After a bubo has been opened, the cavity exposed may present a chancrous appearance, and require the same treatment as a chancre on the penis. In all such cases the patient should, if possible, be under the care of a competent physician; for in some instances sloughing action is set up in the open bubo, and then great destruction of tissue may ensue, and even fatal hemorrhage from the femoral artery has been known to occur.

VENEREAL WARTS.

Venereal warts generally appear on the prepuce or glans, and are very apt to be situated in the angle between these parts. They are very vascular, and of a reddish color; and, if not interfered with, may increase immensely in size and number. They are occasionally met with in the vagina, forming large, irregular, cauliflower-looking masses.

These warts may occur as the result of gonorrhœa, or primary syphilis, independently of any constitutional affection, arising from simple irritation of the muco-cutaneous surfaces; but there are also warts, or verrucæ, of a truly specific and contagious character.

Treatment. This consists in removing them with a knife, scissors, or ligature, and afterwards touching the part from which they spring with caustic, in order to prevent their recurrence. They may be removed by other and milder measures, when the above are not practicable; as the repeated application of nitrate of silver, caustic powders, astringent washes, &c.

SECONDARY SYPHILIS.

The symptoms of secondary syphilis frequently manifest themselves about the sixth week after the appearance of the primary disease; sometimes they do not appear for months, or even years. Before their appearance the patient frequently becomes thin, and somewhat debilitated; the appetite fails, and he may be much afflicted with rheumatic pains. The symptoms generally manifest themselves upon the skin, in the form of eruptions; then upon the mucous membrane of the throat, and finally the bones become affected, if the disease is allowed to go on unchecked.

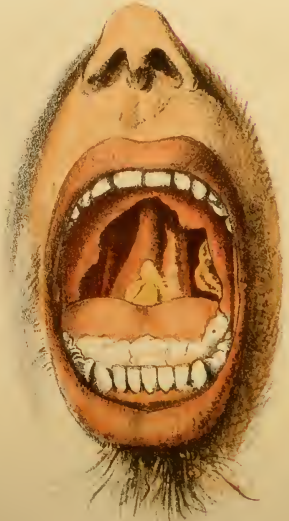
Syphilitic eruptions may take the form of lichen, psoriasis, lepra, rupia, or ecthyma. They are generally copper-colored. [See article on Diseases of the Skin.]

SYPHILITIC SORE THROAT.

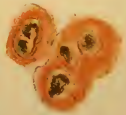
In some mild cases of syphilitic sore throat, there is merely a superficial excoriation of the mucous membrane of the tonsils, or some other part of the mouth or fauces, the parts affected being swollen and sore, presenting, generally, a red and glazed appearance, the natural epithelium of the parts being absent. This state may exist in a mere patch, or it may extend nearly over the whole tongue and inside of the lips. In other cases, we find upon the tonsil an *excavated* ulcer, looking as if a piece had been scooped out of the part; its surface having a foul, yellow look, with raised edges, which are ragged and swollen. The inconvenience and constitutional affection from it may be little, unless it be attended with an eruption. The patient will often complain of pain in his ears, and will have a peculiar guttural way of speaking. A *sloughing* ulcer is more serious. It usually begins as a small aphthous spot, which rapidly ulcerates, and is attended with considerable pain and fever. Upon the surface of the ulcer there is an ash-colored slough, the surrounding mucous membrane being dark, livid, and swollen.

Plate 4

Syphilis



Tertiary



Secondary

TERTIARY SYPHILIS.

When the bones, deep-seated tissues, and internal organs become affected, a patient is said to be laboring under the tertiary form of syphilis.

SYPHILITIC DISEASE OF BONE.

When the syphilitic disease affects the osseous system, it most frequently attacks the superficial bones, as the tibia, (shin bone), collar bone, bones of the skull, &c., commencing with tenderness of the affected bone, and severe pain during the night, the pain being soon accompanied with oblong swellings, called *nodes*, which arise from infiltration of the periosteum, or membrane covering the bone, with lymph and serum. If the disease is arrested at this stage, it causes only a superficial deposit of rough, porous bone, from the organization of the effused lymph. If the disease proceeds further, a quantity of glairy serum becomes effused between the periosteum and bone, producing a painful fluctuating tumor. If the disease be allowed to proceed still further, the bone soon becomes carious. In some cases extensive exfoliations of bone ensue, and the patient may suffer severely from the pain and discharge.

TREATMENT OF SECONDARY SYPHILIS.

If we have a venereal eruption and sore throat to deal with, and the patient has never taken a course of mercury, or but an imperfect one, and his constitution is sound, that remedy may be given as directed in the foregoing pages for primary syphilis. If, while under its use, the patient becomes thinner and weaker, and suffers from chills or feverishness, or if the ulcers become phagedenic and irritable, the mercury should be discontinued, and the iodide of potassium (R. 67) given instead.

In cases where the constitution is considerably broken down, the preparations of iron (R. 59, 62), or iron and quinine (R. 63), with good living, wholesome air, and every-

thing which will tend to improve the general health, must be resorted to. In the *treatment* of tertiary syphilis, mercury should not be given, otherwise the treatment may be the same as for secondary.

Local Treatment. Ulcers in the throat require the application of nitrate of silver, or tincture of iodine, once in two to four days' for two or three weeks. At the same time, the following gargle may be used, three to five times a day: —

Take of Chlorate of Potassa,	. .	6 drachms.
Hydrochloric Acid,	. .	½ drachm.
Pure Water,	. . .	1 pint.

Mix.

For syphilitic eruptions, the warm and sulphur baths will often prove beneficial. Various washes and ointments prove serviceable, but instead of mentioning them here, I will refer the reader to the article on Diseases of the Skin.

SYPHILITIC DISEASE IN CHILDREN.

It is probable that a man laboring under constitutional syphilis may communicate it to his wife; and if she become pregnant by him, it may be communicated to her through the medium of the fœtus; but, at all events, if the wife has it, she may communicate it to the fœtus in utero. In some of these cases the fœtus may die about the third or fourth month, and the woman repeatedly miscarry. In some cases the child is born sickly, and copper-colored blotches or ulcers may be found about the anus or vulva, and aphthæ in the mouth. Sometimes the child is born apparently healthy, these symptoms appearing some weeks afterwards. Then a child may contract *primary* syphilis from the mother during its birth. In all these cases the parents should be properly treated for syphilis.

Treatment of the Infant. The child should be brought up by hand, lest it infect the nurse, or continue to receive fresh accessions of poison from the diseased milk of the

mother. The medical treatment may consist in rubbing eight to twelve grains of mercurial ointment into the arm-pits, or groins, every day, until the symptoms disappear. In these cases the symptoms are apt to recur once or twice, but by perseverance, a favorable result may be hoped for. After the mercurial ointment has been used for two to four weeks, minute doses, — from the twelfth to the fourth of a grain, — of iodide of potassium, may be given in milk, or cod-liver oil. This may be continued for two or three weeks.

It will be well to remember that syphilis is a very serious disease; one which tends to break down the system, and which may be transmitted to future generations; therefore, let all afflicted by this malady, place themselves under the treatment of some regular and reliable physician, until the disease is eradicated, and health restored. Remember that it requires a long time to thoroughly remove such a poison from the system, and be patient and persevering.

OTHER DISEASES OF THE URINO-GENITAL ORGANS.

STRICTURE OF THE URETHRA.

Spasmodic Stricture. This depends on spasm of the muscles of the perineum, or upon contraction of the muscular portion of the urethra. It generally occurs in persons with some permanent obstruction. It may be caused by exposure to cold or indulgence in drink.

Symptoms. Sudden retention of urine; great straining and desire to pass water; the bladder becomes distended, the countenance anxious, the pulse quick, the skin hot; at last the urine dribbles, or the bladder may burst.

Inflammatory stricture is another variety of the above, generally caused by abuse of injections, exposure, or intemperance, during the acute stage of gonorrhœa.

Treatment. A catheter should be introduced at once.

This is managed by introducing as large an instrument as the parts will admit of, and stretching the penis forward on the instrument, the point of which should be directed towards the upper surface of the passage, and pressed steadily but gently against any obstruction. Relaxation of the spasm may also frequently be produced by a copious warm-water injection into the bowel, warm hip bath, ten grains of Dover's powder, and cold water upon the genitals. Should these means fail, call a surgeon as soon as possible.

Permanent Stricture. This is a contraction, or growing up of the passage, from chronic inflammation.

Causes. Gonorrhœa (clap), kicks, blows, or other injury to the part; riding on horseback, excessive use of spiritous liquors, &c.

Symptoms. The patient at first finds that he wants to make water oftener than usual, and that he has more or less uneasy sensation in the perineum after doing so; he also notices that a few drops hang in the passage, and dribble from him after he has buttoned up. Soon he notices that the stream of water is smaller than usual, and forked, or scattered, or twisted, and that he requires a longer time and greater effort than usual to pass it. If the disease is allowed to proceed, the bladder becomes irritable, obliging the patient to rise in the night to void urine. He is liable to attacks of a spasmodic or inflammatory character, with complete retention, as previously described.

Treatment. Apply to a surgeon as soon as possible. If you tamper with it yourself, serious results may follow. The stricture may be situated within two or three inches of the end of the penis, or far back towards the bladder. Surgeons can frequently dilate the stricture by bougies, or other instruments.

SWELLED OR INFLAMED TESTICLE. (*Orchitis.*)

Causes. It is often the result of injury, but oftener of gonorrhœa and its treatment; excessive exercise, wet, and cold may induce it. It is a not uncommon accompaniment of mumps.

Symptoms. There is a sense of great weight, and the swelling constantly increases; the skin becomes tense, red, and glistening; the pain is often intense, sometimes producing fever and vomiting. If it occurs in a case of gonorrhœa, the urethral discharge diminishes or ceases for a time.

Treatment. Low diet and the recumbent position are essential. A dose of Epsom salts should be taken as a purgative, and after the bowels have been thoroughly moved, proper doses of laudanum or morphine may be taken every three or four hours, to relieve the pain. Four or six leeches, applied to the part, often do good. Warm or cold water, according to the feelings of the patient, freely applied to the part, will prove serviceable. The weight of the part must be sustained, while lying down, by a pillow, or something of the kind placed between the thighs. When able to rise and walk about, a suspensory bandage should be worn for a time.

After the acute symptoms have subsided, friction with mercurial ointment, astringent lotions, and compression by adhesive straps, will be beneficial. In discussing the hardness and swelling which generally remain, the iodide of potassium has the best effect.

Take of Iodide of Potassium, . . . 8 scruples.
Spearmint Water, . . . 4 ounces.

Mix. A teaspoonful may be taken in a wineglass of water, three times a day, for several weeks.

DROPSY OF THE SCROTUM. (*Hydrocele.*)

Hydrocele, or dropsy of the scrotum, is a collection of fluid in the tunica vaginalis testis, commencing at the lower part of the scrotum or bag, and gradually ascending. It is smooth on its surface, fluctuating. The testicle is situated at the back part of the sac, near the middle. It may be distinguished from hernia or rupture, by its transparency and progress; there is no impulse upon coughing; it does not retire when the patient lies down.

Treatment. The *palliative* treatment consists in evacuating the fluid by puncturing the sac with a trocar. The *radical* cure is performed by first drawing off the liquid, and then ejecting stimulating fluids, such as port wine and water, tincture of iodine, &c. Always consult a surgeon for this affection.

VARICOCELE.

Varicocele is an enlarged condition of the veins of the spermatic cord. The left side is more frequently affected than the right. The swelling is pear-shaped, and feels through the scrotum like a bunch of earth-worms.

Causes. The causes are such as produce obstruction to the return of blood; constipation, corpulence, tight belts around the body, &c.

Treatment. The disease may be palliated or relieved by removing the causes, bathing the testicle in cold water frequently, and supporting it with a suspensory bandage. The radical cure often requires an operation for the obliteration of the veins; but this should not be resorted to unless the patient suffers great inconvenience from the enlargement, &c. Always take a surgeon's advice in this disease.

SPERMATORRHŒA.

The chief feature of this disease is the involuntary escape of seminal fluid, which, if often repeated, and for a long time, proves most injurious to the mental and bodily health. The involuntary discharges usually take place during the night, and in the hours of sleep; but in some instances they occur in the daytime, and the fluid may pass off with the urine.

The most frequent *cause* of this disease is *masturbation*, or *self-abuse*. The *consequences* of this affection are general weakness, with nervous irritability. There is mental depression; a desire for a dreamy kind of existence, rather than a wish to follow any active occupation; the digestive organs frequently get disordered, as is indicated by flatulence and constipation; the sense of hearing, as well as of sight, becomes impaired; there is loss of memory, and an inability to fix the attention; while attacks of palpitation, giddiness, shortness of breath, headache, and neuralgia are far from uncommon. In extreme instances, it is believed the final result may be epilepsy, consumption, insanity, or impotence. Excessive sexual intercourse may lead to similar results.

It is to be feared that many young persons, of both sexes, impair their health by masturbation, or self-abuse. Parents and guardians should regard it a duty to instil correct ideas, in regard to this subject, into the minds of those under their care.

Treatment. All bad habits which have tended to bring on the trouble must be abandoned; and the patient should read no books on the subject of his disorder. He should work steadily at his occupation, seek cheerful society in the evening, take a proper amount of exercise, sleep upon a mattress, not remain in bed more than eight hours, not indulge in heavy meals, and avoid smoking and the use of

alcoholic drinks. Tonics (R. 59, 62, 63) are often required, and a proper sedative, as a drachm of lupulin, may be taken on retiring. If the patient is of proper age, marriage may prove beneficial.

An occasional involuntary seminal emission, occurring in a healthy individual, of correct habits, need excite no uneasiness. Such cases are not uncommon nor unnatural, and they need no treatment.

All young persons who have abused themselves, and thereby injured their health, will do well to take the advice of some reliable physician.

IMPOTENCY.

Impotence means inability to perform the act of coition. There are three varieties. The *first* arises from an original defect in the organs of generation. The *second*, from local debility of the parts, brought on by masturbation, — self-abuse, — excessive sexual intercourse, or some prostrating sickness. The *third* originates from fear, excess of passion, or want of confidence at the moment of coition.

The first is incurable. The second must be treated by the general principles and remedies which tend to restore the strength of the system; consisting of the cold bath, tonics (R. 59, 63), generous diet, exercise, and by *steadily avoiding the causes which may have produced it.* If the general health is much impaired, consult some reliable physician. The remedies for the third, must be sought for in calming excessive agitation, and acquiring, by habits of intimacy, that confidence they are sure to produce.

DISEASES OF THE PROSTATE GLAND.

The prostate gland is a muscular body, consisting of circular involuntary fibres, with one large central hole for the

passage of the urethra, and another smaller oblique opening, directed upwards, below the former, for the transmission of the common ejaculatory seminal ducts to the central urinary canal. Its circular fibres are directly continuous behind, without any separation, with the circular fibres of the bladder. The prostate is thus essentially a circular, involuntary sphincter to the neck of the bladder, and expeller of the semen. It secretes a fluid termed the *liquor prostaticus*.

PROSTATORRHŒA.

Prostatorrhœa signifies a discharge from the prostate gland. Owing to irritation or congestion of the prostate, the *liquor prostaticus*, or prostatic fluid, is frequently secreted in excess, and, in some cases, to such an extent that the urethra is kept constantly wet with the fluid, which is slimy, resembling diluted white of egg. In some cases, at times, the secretion may have a milky appearance, and there may be some heat and scalding of the urine. In other cases, the secretion is only noticed after going to stool; it then escapes with the last drops of urine, being pressed out by the straining efforts in defecation. This secretion is often mistaken for semen; and it is only by a microscopic examination of the fluid that the question can be settled. In many of these cases the urethra is found over-sensitive, the passing of a sound or bougie causing acute pain, which will be most severe when the instrument is passing through the prostatic portion of the canal. In these cases, during an erection, or as it subsides, which is apt to be very quickly, a glairy or slimy fluid issues from the urethra. If this state of things long exists, the organs become more or less weakened.

Causes. Masturbation (self-abuse), excessive sexual intercourse, excessive spirit-drinking, the irritation of gravel, &c.

Treatment. This is a curable complaint, but sometimes it proves obstinate. Undoubtedly many cases are treated, by quacks, as spermatorrhœa. The organs require rest for

a considerable time; and any bad habits which have tended to produce the complaint, must be *entirely abandoned*. If the urine is too strongly acid, the proper use of alkalies will be beneficial. The passing into the bladder of a No. 10 steel sound, every fourth day, and allowing it to remain ten or fifteen minutes, often proves serviceable. If the patient is debilitated, tonics will be required; if plethoric, sedatives will be useful. As this is a very annoying trouble, the wisest course for a patient to pursue is to place himself under the care of some regular and reliable physician; he should let him have charge of the case, while he withdraws his mind from it as much as possible. A patient is sometimes afflicted with both spermatorrhœa and prostatorrhœa, but with proper treatment he will recover from them.

INFLAMMATION OF THE PROSTATE GLAND.

ACUTE INFLAMMATION of the prostate gland is generally a consequence of acute gonorrhœa, but may be caused by stricture, stone, or any other source of irritation.

SYMPTOMS. Great weight, pain, and throbbing at the neck of the bladder; violent, and exceedingly painful efforts to make water. As the inflammation subsides, a grayish, viscid, muco-purulent matter is voided with the urine.

TREATMENT. Rest in bed, low diet, hot hip baths, leeches to the perineum; and half a teaspoonful of laudanum in a wineglass of thin warm starch, may be injected into the bowel at night, to relieve pain and promote sleep. It may also be used during the day, if the pain is excessive.

The inflammation sometimes becomes chronic, and then should be treated by baths, iodide of potassium, &c.

An abscess may occur in the prostate, in scrofulous subjects.

CHRONIC ENLARGEMENT of the prostate gland is an affection peculiar to advanced life, and consists of an increase of the natural muscular structure, and incidentally of the glandular.

Symptoms. The symptoms which the patient describes, are slowness and difficulty in making water, sense of weight in the perineum, and a frequent desire to evacuate the bowels, with pain in so doing, so that he often ascribes his trouble to internal piles. In the next place, the bladder becomes irritable, and calls to make water are oftener than usual. Then, as the patient cannot empty the organ completely, in consequence of a projection formed by the tumor, a portion of urine always remains behind, and decomposes, and becomes ammoniacal. Sometimes a fit of complete retention ensues; and it may be brought on by exposure to cold, or excessive sexual indulgence.

Treatment. This must be palliative. If complete retention occurs, the catheter should be passed, if possible, and the urine drawn off. But this cannot often be done by any one except a physician who thoroughly understands the nature of the obstruction, and how to surmount it. The warm hip bath, and laudanum and starch injections, often prove serviceable.

In all cases of retention of urine, from whatever cause, if the patient does not soon obtain relief, send for a surgeon. Delay in such cases is dangerous.

GRAVEL AND STONE. (*Urinary Calculus.*)

Gravel is usually formed in the kidneys, by a precipitation of earthy substance. It often passes off freely and frequently. When retained until a large mass is formed, the disease is called *stone.*

Symptoms. Pain in the loins, irritation and retraction of the testicle, bloody urine and inflammation of the kidney. The passage of the stone through the ureter (a tube conveying the urine from the kidney to the bladder) causes most acute and severe pain in the loins and groin, faintness and nausea, which may last for several days, and is only relieved by the stone entering the bladder.

TREATMENT. The treatment for a *fit of the gravel*, as these attacks are called, consists in large doses of opium, warm bath, flaxseed or slippery-elm tea, and castor oil to move the bowels. When the pain is *very* severe, forty drops of laudanum may be given, and repeated in an hour, if necessary. Flannel wrung out of hot water, and laid over the seat of pain, will prove beneficial, and should be used in cases where there are no facilities for a warm bath. It must be applied as hot as can be conveniently borne, and changed often. A warm-water injection will prove serviceable. In some of these cases the pain is so intense that it may be advisable to etherize the patient; but this should never be attempted except by some person who knows how to do it properly.

STONE IN THE BLADDER.

SYMPTOMS. The symptoms of stone in the bladder are frequent, sudden, irresistible, unrelieved desire to make water; pain in the glans penis, and elongation of the prepuce; sudden stopping of the stream in passing water, and its reëstablishment by change of position — the urine being mixed with mucus, and sometimes with blood.

Whenever a person suspects he has a stone in his bladder, he should apply at once to a physician, who will decide the question by an examination with an instrument called a *sound*. Stones vary in their form, size, color, consistence, and chemical composition; some are rough on their surface, others smooth; they are more frequently of an oval shape. The size may be that of a pea, or that of a goose-egg. Some are soft and friable, and crumble easily; others are flinty, and require great force to break them. The most common color is a light brown; some, however, are nearly white, others nearly black.

CAUSES. Derangement of health; deficiency of exercise; indulgence in animal food; and dyspepsia. It is also dependent upon climate, age, locality, and hereditary influences.

The character of the water drank undoubtedly influences its production.

TREATMENT. When a stone of considerable size has formed in the bladder, it cannot be removed by medicines; surgical means must be resorted to.

LITHOTRITY.

This implies the *crushing* of the stone whilst in the bladder, by an instrument constructed for that purpose. After this is done, the fragments gradually escape with the urine.

LITHOTOMY.

This implies *cutting for the stone*, and is resorted to when, from any cause, *lithotrity* cannot be made available. In this operation, an opening is made into the bladder, at a proper point, and the stone at once removed. None but an experienced surgeon should undertake such an operation.

When a person is troubled with gravel, and before a stone has formed in the bladder, medicines may prove beneficial. The general health should be improved, and if the water drank come from a chalk or limestone district, it must be avoided.

When the gravel is of an acid character, the alkalies, soda and potash, taken for a considerable time, may prove beneficial. If of an alkaline nature, the mineral acids may be resorted to with benefit. Never tamper with yourself in this disease, for no one but a physician can decide upon the proper remedy for you.

PHYMOSIS AND PARAPHYMOSIS.

PHYMOSIS is said to exist when the prepuce or foreskin cannot be drawn back over the glans penis. For *treatment*, apply to a surgeon.

PARAPHYMOSIS is the opposite condition to that just described; the prepuce is retracted, and cannot be brought forward. Swelling of the glans takes place, and will, if relief be not obtained, terminate in mortification. For *treatment*, apply to a surgeon at once. By applying cold water to the part for an hour or two, and then endeavoring to draw the foreskin forward with one hand, while you try to compress and push the glans back with the other, relief may be obtained.

CHAPTER V.

ON ABSCESS AND ULCERS.

ABSCESS.

A COLLECTION of pus or matter in any part of the body is termed an abscess. Every swelling or tumor which ends in the formation of matter is properly an abscess.

SYMPTOMS. When pus begins to form during an acute inflammation, the event is generally indicated by chills, cessation of the pain, flushes of heat, and decline of the fever. If the abscess is upon the surface of the body, there will usually be a white spot on the inflamed part, more prominent than the rest of the tumor, softer, and disposed to fluctuate when pressed with the fingers.

TREATMENT. The proper treatment of an abscess consists in the application of warm poultices and fomentations, in order to hasten the formation of matter. Poultices of bread and milk, flaxseed meal, or ground slippery-elm bark may be used. When pus can be detected by the softness and fluctuation of the part, open it with a lancet. After the matter is discharged, the application of poultices should be continued as long as there are any signs of active inflammation, or redness, pain, and soreness. The cavity must be kept clean, and the diet should be plentiful and nutritious. If an abscess is large, and the patient of feeble constitution, tonics, such as the preparations of iron or quinine, may be necessary.

After the inflammation has subsided, the abscess may be dressed with simple cerate, as a common sore.

If the cavity of an abscess is large, and the healing process very slow, dissolve twenty grains of sulphate of zinc in a pint of water, and use the solution as a wash once or twice a day, for several days. A wash made by adding one ounce of solution of chloride of soda to eight of water often proves beneficial.

WHERE TO OPEN AN ABSCESS, ETC.

When only a small puncture is needed, a common lancet answers very well. When a larger opening is necessary, a proper abscess lancet may be employed. By moving one of these instruments forward, after the part has been punctured, the opening may be made of any required size. Great caution should be observed in opening abscesses situated near important organs, or in the palm of the hand, or on the foot, or the inner side of the extremities, for fear of injury to the organs, or of wounding arteries. Be sure that you do not put your lancet into a sack of blood instead of an abscess.

When *sure* you are dealing with an abscess, and the time has arrived for opening it, the best place to puncture is generally where the fluctuation is most perceptible, or where the pointing takes place; for here the skin is thinnest. This consideration, however, is not to make us unmindful of the advantages of a depending opening, which lets the matter readily escape, and often removes all occasion, either for the enlargement of the first opening or for the formation of a second in another place. The latter, which is termed a *counter-opening*, becomes necessary when an abscess bursts at a point from which the matter cannot escape with sufficient readiness. The size of the opening should be such as will allow the matter to escape with facility

ULCERS.

By ulcers, are meant holes or sores in the skin and flesh, which discharge matter or pus. They may be divided into healthy, inflamed, fungous, sloughing, indolent, varicose, and carious.

HEALTHY ULCER.

Symptoms. A healthy or healing ulcer is nothing more than a healthy, granulating, and cicatrizing surface. The granulations are small, numerous, florid, and pointed, and yield a moderate secretion of healthy pus. This may be termed a common sore, healing properly.

Treatment. Simply protect the part from the air, by lint dipped in tepid water; or, if in hot weather, use the following preparation: —

Take of	Carbolic Acid, ...	1 drachm.
	Glycerine, ...	½ ounce.
	Water, ...	1½ ounces.

Mix. This makes an excellent dressing for ulcers. A piece of linen spread with simple cerate is also a good dressing for a healthy ulcer.

INFLAMED ULCER.

Symptoms. The margin of the sore is ragged, the skin ending in a sharp edge around it. The neighboring parts are red, swollen, and painful; and the bottom of the ulcer is uneven, and covered with a white spongy substance. In place of healthy, yellowish pus, it discharges a thin fluid; the surface of it bleeds on the slightest touch.

Treatment. Keep the patient quiet, and on a low diet; administer a purgative, and apply to the ulcer a poultice of flaxseed meal or slippery-elm. When the inflammation has subsided, and healthy yellow matter is formed, omit the poultice, keep the sore clean, and use the dressing advised for simple healthy ulcer.

FUNGOUS ULCER.

SYMPTOMS. The presence of large, round granulations, rising above the level of the adjoining parts, or what is commonly called "*proud flesh*," marks this species of ulcer.

TREATMENT. Burnt alum and blue vitriol are sometimes used to destroy the proud flesh; but the nitrate of silver (lunar caustic), passed lightly over the surface of the ulcer, is preferable. After the caustic has been applied, dress the sore with simple cerate, and pass a bandage firmly over the whole. Dress it daily.

SLOUGHING ULCER.

SYMPTOMS. The mortification or death of parts of an ulcer, which fall off. It is generally attended by fever and pain.

TREATMENT. The diet should be generous, and iron and quinine may be given to strengthen the system. Porter or ale may also be taken.

Cauterize the ulcer thoroughly with nitrate of silver, and apply warm flaxseed poultices. Wash the ulcer daily with the following: —

Take of Liquid Chloride of Soda, . . 1 ounce.
Water, ... 7 ounces.
Mix.

When the dead portions have all fallen off, treat it as a simple ulcer, paying attention, however, to the state of the system.

INDOLENT ULCER.

SYMPTOMS. The edges of the skin are thick, raised, smooth, and shining. The points of new flesh are glossy, and the appearance of the ulcer is that of an old one in which the healing process is at a stand.

TREATMENT. Touch the whole surface, sides, and edges of the sore with lunar caustic, or blue vitriol, and endeavor to

rouse the parts to action. If one article fails, try another. Strips of adhesive plaster may be passed over the ulcer, about a third of an inch apart, so as to draw its edges nearer together, and a bandage be applied over the whole. When the healing process begins to go on properly, dress as a simple ulcer.

VARICOSE ULCER.

This is dependent upon a varicose or enlarged condition of the veins, and usually occurs in the leg, just above the ankle. It is oval and superficial, and attended with deep-seated, aching pain. The ulcer is indolent, and generally moist upon the surface.

TREATMENT. The permanent cure must depend upon removing the disease of the veins. Much relief will be found in the constant use of cold water, rest, regular bandaging, or laced stockings. Keeping the part elevated, and washing it twice a day with water containing sugar of lead in solution (one drachm to a pint), and protecting it from the air by a cloth smeared with simple cerate, will often cause it to heal temporarily.

CARIOUS ULCER.

SYMPTOMS. Ulcers situated over or near carious (or dead) bone, are thereby prevented from healing. They frequently penetrate to some depths into the parts, forming a canal, with hard and indolent sides, which discharges an offensive, unhealthy matter.

TREATMENT. Keep the ulcer clean, repress any fungous or "proud flesh" that may arise, and pay attention to the general health of the patient, taking care that his strength be kept up, if necessary, by iron, quinine, wine, porter, &c. The ulcer will not permanently heal until all the pieces of dead bone are thrown off. Whenever an ulcer proves obstinate, consult a physician.

CHAPTER VI.

DISEASES OF THE BONES.

CARIES.

Caries is an ulceration of the bone. The disease most frequently attacks the thick bones, and the extremities of long bones. It is attended with pain and swelling, and there is often a fetid discharge, containing portions of bone.

Causes. Local injury; constitutional affections, such as scrofula and syphilis.

Treatment. If caused by constitutional trouble, change of air, tonics, and alteratives will be required. If scrofula is the cause, use the remedies and measures directed for that disease. If syphilis is performing the work, the treatment directed for the *tertiary* form of that disease will be proper.

In obstinate cases, surgeons expose and remove the whole of the diseased portion of bone by the saw, or gouge, or trephine.

NECROSIS.

By necrosis, is meant the death of the bone, which is often enclosed in a case of new bone. Sometimes the dead parts separate from the living in the same manner as dead flesh. The dead pieces are thrown off, and make their way to the surface. It occurs at all ages, and most frequently in the compact bones. It is attended with swelling, and a discharge of matter through openings, in the case of new bone.

For treatment, apply to a surgeon. You can do nothing yourself, more than to keep your general health good.

BRITTLENESS OF BONES. (FRAGILITAS OSSIUM.)

Brittleness of bones frequently occurs in youth, but oftener in old age. A hasty step, turning in bed, or tripping on a carpet, may produce fracture.

CAUSES. Long confinement, scrofula, intemperate habits, cancerous affections, &c.

TREATMENT. Set the fracture as usual. In old persons, all that can be done in the way of general treatment is to guard against any accident, and to enjoin a generous diet and salubrious atmosphere. In scrofulous children, a good diet, pure air, and tonics are proper.

SOFTENING OF BONES. (MOLLITIES OSSIUM.)

This is a deficiency of the earthy matter of bones, and hence they are soft and pliable. This disease affects adults, and its course is generally rapid. The bones are light, soft, and frequently consist of an external shell, filled with soft, fatty matter. The general health is much impaired; and flesh, spirits, and strength diminish daily. The cause is obscure.

The TREATMENT is merely palliative, the disease being incurable. Tonics, good food, and pure air will prove serviceable.

RICKETS. (RACHITIS.)

This is a disease peculiar to youth and scrofulous temperaments. There is an original defect of the skeleton or bones. This disease often gradually increases with age, and hence great deformity of the limbs and curvatures of the spine, &c., occur.

In adult life, the general health may be regained, and the patient, though much deformed, prove a healthy, muscular, and active person.

TREATMENT. Do everything possible to improve the general health. A reasonable amount of exercise in the open

air is essential. The diet must be generous, and should consist, to a considerable extent, of animal food of easy digestion.

Mechanical apparatus, properly constructed, may in some cases be of service in preventing permanent deformity.

DISEASE OF HIP JOINT. (COXALGIA.)

This is a disease common to scrofulous children.

SYMPTOMS. At the commencement there is slight pain, referred to the knee; some lameness and stumbling in walking; usually tenderness in groin, and pain is produced by suddenly pressing upon the head of the bone; and the limb *appears* lengthened. Unless the disease is arrested, the head of the bone and its socket become destroyed, and the thigh bone is drawn up, constituting a spontaneous dislocation. Frequently an abscess forms, and opens externally.

TREATMENT. Leeches over the joint may be useful at first. Subsequently more benefit will be derived from counter-irritation by blisters and issues. The patient often has to be confined to the bed for a considerable time, the limb being kept in a proper splint. The bowels may be regulated by laxatives. Tonics and alteratives are the constitutional remedies. This disease may last for months, or even years. Always consult a surgeon for this disease.

CHAPTER VII.

MISCELLANEOUS SURGICAL DISEASES.

TUMORS.

By the word *tumor*, is meant an enlargement or swelling of any part of the body. They are of different kinds, arise from various causes, and are more or less dangerous, according to their nature and the place they occupy.

Tumors sometimes derive their names from the substance of which they are composed, as *fleshy tumor*, *fibrous tumor*, *fatty tumor*, &c. Cystic tumors are those which consist of a sac, containing solid or liquid substances.

Treatment. Apply to a surgeon.

ANEURISM.

An aneurism is a pulsating or beating tumor, filled with blood, which communicates with an artery. It is without pain or redness, and if small, will disappear on pressure, but return the moment it is removed. It is generally found in the neck, ham, bend of the elbow, or connected with the large artery (aorta) leading from the heart. An aneurism may be true or false. A *true* aneurism consists of the dilatation of one or more of the coats of the artery. A false aneurism arises from the escape of blood from the artery into the surrounding tissues. It may be caused by a wound of the artery, or from an external ulcer perforating its coats.

Treatment. Do not tamper with it yourself, but apply to a surgeon as soon as convenient.

POLYPUS.

Polypus is an empirical and antiquated term, employed to signify any sort of tumor attached to a surface by a pedicle. These tumors are frequently found in the nose, on the neck of the uterus, and some other mucous surfaces. As soon as any affection of this kind is suspected, apply to a surgeon.

CANCER.

Cancer is a term applied to several kinds of malignant disease; and under this term are included several morbid growths, — *encephaloid*, *scirrhus*, and *colloid*, — whose physical characters are so various, that they were formerly considered separate affections. Of all the forms of cancer, the *encephaloid*, or *soft cancer*, runs the quickest course, is the most malignant, and causes death in much the shortest time.

Scirrhus, or *hard cancer*, does not attain so large a size as encephaloid, and runs its course more slowly.

Colloid is a variety of cancer which consists of a jelly-like matter. It is most frequent in the intestinal canal.

Cancer may affect almost any part or organ of the body. The eye, lip, testicle, female breasts, womb, lungs, stomach, liver, and kidneys may all be affected by this much-dreaded disease.

Cause. Unknown.

Symptoms. When this affection has become fully developed, the patient generally bears on his countenance a plain token of a formidable disease; the features are shrunken and anxious, the complexion sallow, and emaciation is beginning to be realized. Pain is almost always considerable, often severe and cutting.

Treatment. No radically curative measure, such as is

capable of removing the cancerous taint from the blood, and of arresting the growth of the local disease, is known. All that we can do is to check the disease so far as we are able, and make the patient's life as long and as comfortable as our means permit.

If a person has a cancerous affection of the lip, breast, or any external part, its early and thorough removal may tend to prolong life. The general health should be improved, and the patient may never be troubled again by the disease; but it must be remembered that removing the local manifestation of the affection does not remove the cancerous taint from the blood; consequently, the disease *may* reappear, after a longer or shorter time, either in the old spot, or some other locality.

When a cancer has become an open sore, and its removal is not thought advisable, it should be treated like any other foul ulcer. It should be cleansed once or twice a day by a weak solution of the chloride of soda. One ounce of the liquid to eight of water will make a good wash. After it has been thoroughly cleansed, it may be dressed with simple ointment, or a poultice of flaxseed meal applied, as occasion may seem to require. If painful, opiates may be taken as often as may be necessary.

No person should tamper with a cancerous disease, but seek the advice and guidance of a regular physician, whenever possible. The country abounds in quack "cancer doctors," who, I believe, are accustomed to call almost everything in the form of a tumor or sore, a cancer, or "*cancerous;*" consequently they often obtain the credit of curing a cancer, when the affection treated was of a benign instead of a malignant character. No "cancer doctor," so far as I know, has ever received a regular medical education; consequently, it would be unreasonable to suppose them to understand the nature and proper treatment of cancers, any better, if so well, as physicians who have.

PILES. (*Hemorrhoids.*)

Piles, or hemorrhoids, are small tumors, which arise in and about the lower end of the bowels. They are composed of a congeries of varicose or enlarged veins, surrounded by condensed cellular tissue. In some instances they are without the verge of the anus, and in others within it. The first are called *external*, and the second *internal piles*. In some cases bleeding occurs from ulceration of the skin or mucous membrane covering them. They are then termed bleeding piles. When they do not bleed they are called blind piles.

Causes. Costiveness, intemperance in eating and drinking, strong purgatives, fulness of blood, and an inactive, sedentary life.

Treatment. Regulate the bowels by laxatives, and take a cold-water injection once or twice a day, just previous to evacuating the bowels. If there is much soreness about the verge of the anus, apply the following ointment night and morning, after evacuating the bowels: —

Take of Ointment of Galls, . . . 1 ounce.
Powdered Opium, . . . 8 grains.
Mix.

Persons troubled with piles should endeavor to avoid everything which tends either to produce or aggravate them.

Piles sometimes become so large and troublesome as to require removal. In bad cases apply to a surgeon.

FISSURE OF THE ANUS.

This is an ulceration or cracking of the skin and mucous membrane on the verge of the anus, and is attended with severe pain, especially when the bowels move. It very often results from dyspepsia.

Treatment. Alteratives and laxatives may be given to

bring the bowels into a healthy condition. The ulcer or fissure may be gently touched with nitrate of silver (lunar caustic), after which apply the ointment recommended for piles.

FISTULA IN ANO.

This disease generally commences as an abscess by the side of the rectum. It usually begins with a hard, circumscribed, red, painful bunch or tumor, very near the entrance to the bowel. It will often create a high fever, quick, forcible pulse, and extreme pain, especially when the contents of the bowels are discharged.

Treatment of the Abscess. The patient should keep quiet, and partake of light food. The bowels may be moved by a dose of castor-oil or Epsom salts; after which, warm fomentations and poultices may be applied to the tumor. As soon as the matter is formed, it should be let out with the lancet. The opening must be large enough to prevent the formation of more matter,

Abscesses, boils, &c., may form about the extremity of the rectum or bowel, and go on to suppuration, and discharge their contents, and heal, the same as similar affections in other localities. But when healing does not take place, and an opening or canal is left by the side of the bowel, discharging matter, a person is said to have a *fistula*. If this canal opens into the bowel, it is called a *complete fistula*. When it does not, it is termed a *blind external fistula*. When there is an opening into the bowel, but not externally, we have a *blind internal fistula*.

In complete fistula there is a frequent discharge of pus, mucus, feces, and wind, and it is attended with heat, uneasiness, and pain.

Treatment of the Fistula. The proper remedy for complete fistula is division of the sphincter ani, or muscle which surrounds the bowel, so as to prevent its contraction

for a time, and allow the wound to heal from the bottom. By this process the fistulous opening becomes obliterated, and the patient relieved of a very annoying disease. If properly treated, *fistula in ano* is not the serious disease which it is commonly supposed to be.

Fistula and disease of the lungs often coexist, and in such cases, to cure the fistula may tend to increase or hasten the development of the lung trouble. All persons afflicted with this disease should consult a reliable physician, who will give due weight to all the circumstances and complications attending it, and advise accordingly.

BOILS. (*Furunculus.*)

A boil is a painful, hard, circular, red tumor, which generally maturates, and discharges, together with pus, a kind of core. They vary in size, but are not often larger than an English walnut. They generally come singly, but in some cases several may appear at the same time. They occur most frequently in young persons, and in those of plethoric habit, and in those parts where the skin is thickest.

Treatment. Poultices and warm fomentations should be applied early; as soon as pus has formed, a free incision through the tumor must be made. After the "core" has been discharged, dress with simple cerate, or resin ointment. Boils arise from some disorder of the blood, occasioned by unwholesome food, or some unknown depressing influence. They frequently follow bowel complaints, fevers, small-pox, measles, and some other diseases.

When boils begin to make their appearance, the bowels should be opened by a good purgative, and the patient's diet must be wholesome and liberal.

The preparations of iron and quinine are beneficial for debilitated patients.

CARBUNCLE. (*Anthrax.*)

A carbuncle is a hard, painful, deeply-seated tumor, which appears most frequently on the back and shoulders. It resembles, in many respects, a large boil. After a few days the surface assumes a livid redness, and a spongy feel; a white discharge takes place through a number of little orifices, formed in the swelling; a dark-colored core appears in the centre; and a fetid smell gives warning of dead matter beneath the surface. The discharge resembles whey, with atoms of curd in it. When large, it is liable to be attended with violent fever, followed by great, and sometimes fatal prostration of strength.

Treatment. In some cases it is beneficial to cut through the tumor whilst hard and brawny; in other cases, it may be better to defer this till suppuration has commenced, and then to make a crucial incision through the infiltrated tissues, so as to insure a free discharge of all pus and dead flesh. After opening, apply warm poultices, &c., as directed for boils.

This is a blood disease, and will require tonics, such as iron, quinine, &c. When the prostration is great, wine or brandy will be necessary. If the pain is severe, laudanum or morphine may be taken in proper doses. It is always well to open the bowels with a proper cathartic at the commencement of the disease. The following may be as good as any: —

Take of Blue Mass, ... 3 grains.
Extract of Jalapa, ... 2 grains.

Mix. Three hours after taken, give half an ounce of castor-oil, or a Rochelle powder.

CHILBLAINS. (*Pernio.*)

This is an affection of the skin, produced by sudden alternations of cold and heat. The heels, toes, ears, or fingers

are the parts usually affected. It is attended with itching, swelling, pain, &c.

TREATMENT. With a camel's-hair brush, paint the parts over daily, for two or three days, with tincture of iodine; or apply the following liniment night and morning: —

Take of Spirit of Turpentine, . . . 1½ ounce.
Spirit of Camphor, . . . ½ ounce.
Mix.

FROST BITE.

When a part of the body is frost-bitten, it becomes contracted, pale, and insensible. It may take place without the consciousness of the patient. If care is not taken, it may end in mortification of the part.

TREATMENT. First rub the part with snow, and then with cold water, in a room without fire. Afterwards apply a little spirit and water.

FELON. WHITLOW. (*Paronychia.*)

This is a painful, inflammatory swelling, affecting the end of the finger or root of the nail. It is painful and troublesome in proportion as it is more or less deep seated. Where only the skin is inflamed, it is soon well; but where the inflammation is deep in the flesh, and reaches the bone, it is very painful, and long in suppurating. When the inflammation is near the surface, the skin is red; but if deep-seated, there is little or no appearance of redness, although the swelling be considerable.

TREATMENT. If the disease is superficial, holding the part in hot water, or bathing it with spirit, may cause it to disappear; but if deep-seated, a leech or two may be applied to the part, and the patient may take a good dose of Epsom salts, and observe a low diet for a few days. But if these

measures fail to give relief, a deep and free incision must be made into the part, and bleeding be encouraged by holding the finger in warm water. A poultice of flaxseed or slippery-elm may then be necessary, for a few days. Soaking the finger in warm soap suds for fifteen minutes, night and morning, will prove beneficial. Laudanum may be taken to relieve pain, and the surface of the poultice may also be wet with it.

A felon sometimes causes the loss of one of the bones of the finger; and when it proves obstinate, apply to a surgeon.

WEN.

A wen is a tumor or swelling formed upon the surface of the body; most commonly upon the head, neck, shoulders, and back.

They may grow to an enormous size, but those usually seen are about half as large as a hen's egg. They are usually of a round, or oval shape, but sometimes have a neck, and are shaped like a pear. Some of them consist of a substance which resembles the curd of cheese, enclosed in a sac.

Treatment. The only sure remedy is to have them extirpated by the knife. In cutting them out, it is of the utmost importance to dissect out all the sac in which they are contained, otherwise they may grow again. For this treatment apply to a surgeon.

WARTS.

Warts consist in an enlargement of the papillæ and cuticle. The commonest variety is the wart which frequently grows on the hand.

Treatment. If necessary to interfere, warts may be snipped off, and the points from which they sprung touched once or twice with lunar caustic, or nitric acid, to prevent their recurrence. Touching them twice a day with tincture

of iodine will generally soon cause them to disappear; but they often return obstinately, in spite of treatment, and frequently disappear of themselves when let alone.

CORNS.

Corns are growths of thick cuticle, not merely lying *upon* the true skin, but penetrating into it. They are produced when the skin, situated over some projecting point of bone, is irritated by pressure or friction. Their usual seat is on the joints of the toes, and tight boots or shoes are their usual cause. They are divided into two kinds, the hard and the soft. The hard is situated on the surface of the foot, where the cuticle can become dry and hard; the soft, between the toes, where the cuticle is soft and spongy.

Treatment. Lay aside the boots or shoes which have caused them, and wear only such as are properly adapted to the size and shape of the feet. For the removal of the existing corns, soak them well in warm water, and then, with a very sharp knife, pare them down to a level with the surrounding skin. By afterwards wearing boots or shoes of proper size, the remaining hardness will soon disappear. A professional "corn doctor" will sometimes remove the whole corn at once, without causing much pain. But, however removed, it will return again if boots or shoes of improper size are worn.

BUNION.

A bunion is a swelling about the joint which connects the great toe to the foot. It is often very annoying and extremely painful. It may arise from several causes.

Treatment. Wear properly fitting boots or shoes, and if the part is painful, painting it with tincture of iodine once or twice a day, for a few days, may prove beneficial. It will be well to consult a surgeon as soon as convenient.

IN-GROWING TOE NAIL.

This is a very painful affection, generally the result of wearing tight boots or shoes. It is usually accompanied with more or less inflammation, and at times ulceration. Fungous growths or proud flesh may appear, and the pain become so severe as to render the patient unable to walk or wear a shoe.

Treatment. If the part is inflamed, soak it in warm saleratus water, daily, for twenty minutes each time; after each soaking, a poultice of slippery-elm may be applied, and changed two or three times a day. As soon as this course has removed the inflammation, then, after each bathing or soaking of the part, press some lint under the embedded portion of the nail, so as to elevate it as much as possible, without occasioning too much pain. The elm poultice may be continued if the part remains painful. Dress it thus once or twice a day. Any fungous or "proud flesh" may be destroyed by the nitrate of silver — lunar caustic. The object of the above treatment is to raise the nail from the flesh, that it may be cut off in small pieces from time to time, continuing the introduction of the lint, and cutting off the nail, until the offending portion of it has been removed. After the nail has been sufficiently removed, and the proud flesh destroyed, the part readily heals. It will be well, at the commencement, to scrape the nail along its middle, until it is as thin as writing paper, as it will then readily bend under slight pressure. It sometimes requires a long time to effect a permanent cure. If tight boots or shoes are again worn, the difficulty will return.

CARE OF THE FEET.

The feet should be washed every day, especially in warm weather, care being taken to prevent any lodgment of filth

between the toes. After washing, wipe and dry them thoroughly. The nails of the toes require as much care as those of the fingers: they should never be allowed to grow too long, but should be properly cut as often as they require it. The stockings may be made of cotton or woollen, the former being better suited for warm weather, and the latter for cold. They should be frequently changed.

The feet of many persons sweat excessively, and occasion disagreeable sensations, as well as an unpleasant odor, especially if they are inattentive to cleanliness. This may be lessened by daily washing the feet with soap and water, or with water containing a little solution of chloride of soda. Two tablespoonfuls of the solution to a pint of water will be sufficient.

In cold or wet weather, thick boots or shoes should be worn, and when the walking is very bad, rubbers may be put on over them. There is nothing lost by keeping the feet dry and warm.

When the feet become casually wet, the shoes and stockings should be at once removed, the feet bathed in warm water, and thoroughly dried by considerable friction with a coarse towel, and by holding them to the fire. This course will tend to prevent colds and coughs.

RULES FOR THE PRESERVATION OF THE TEETH.

Rule 1. Be careful not to hold any fluid or solid substance in the mouth, either too hot or too cold; and be very particular not to bite or crush any hard substances, as nuts, &c., with the teeth.

Rule 2. Do not allow acid substances or sour drinks to remain in contact with the teeth. After using such, rinse the mouth well with water, in which may be dissolved a little saleratus, or bicarbonate of soda.

Rule 3. At least once a day, clean the teeth with a tooth-

brush, using some one of the tooth powders mentioned under the head of "Miscellaneous Recipes," in the latter part of this book.

Rule 4. As soon as a carious spot is observed on a tooth, go to a dentist's and have it filled.

Rule 5. Whenever a tooth has become too much decayed to be preserved by filling, and is giving you pain, have it extracted without delay. Allow no badly decayed teeth or old "stumps," to remain in your mouth, to render your breath offensive and impair your health.

PART III.

CHAPTER I.

RECIPES. PRESCRIPTIONS. MEDICINES.

THE following Recipes or Prescriptions are referred to by numbers, throughout the pages of this book, — R standing for Recipe.

1. EMETICS.

EMETICS are medicines which excite vomiting. They may be used to empty the stomach when any indigestible substance is causing distress, and sometimes they are beneficial in the first stage of fever; also in bronchitis, croup, &c. A prompt emetic is very essential in cases of narcotic poisoning, as by opium, laudanum, morphine, or belladonna.

No. 1. Powdered Ipecac.

This is a very useful and safe emetic, and may be given in all ordinary cases. An adult may take twenty grains in molasses, or sugar and water. When nausea begins to manifest itself, the patient may drink freely of warm water, to promote vomiting. If one powder does not produce the desired effect within one hour, a second may be taken in like manner.

No. 2. Wine of Ipecac.

Dose for an adult, from one ounce to one ounce and a half. For children, one to two teaspoonfuls, repeated every ten or fifteen minutes, until vomiting takes place. Warm water may be taken as recommended above.

No. 3. Powdered Black Mustard.

Take a teaspoonful or two in a teacupful of warm water, every five or ten minutes, until free vomiting takes place. The patient should drink freely of warm water, so that the stomach may be well washed out. This is a very prompt and safe emetic, and may be used in cases of poisoning by opium or other narcotics. From thirty to sixty grains of *sulphate of zinc* may be used instead of the mustard, when at hand.

2. CATHARTICS.

CATHARTICS are medicines which evacuate the bowels. They also fulfil other indications not necessary to be mentioned in this work.

No. 4. Compound Cathartic Pills.

These are kept by all apothecaries. Dose, for an adult, two or three. A safe and efficient purgative.

No. 5. Purgative Powder.

Take of Powdered Jalap, ... ½ ounce.
Powdered Alexandria Senna, . . 1 ounce.
Powdered Cloves, ... 30 grains.

Mix. Dose, for an adult, a teaspoonful or more. It may be taken in molasses, or steeped in a teacupful of boiling water, for an hour, and drank when cold.

This is an excellent purgative, and may be given to children without difficulty, owing to the pleasant taste of the tea. A child of five years may take about one fourth of a teaspoonful; a youth of fourteen years, one half teaspoonful.

No. 6. Epsom Salts. (*Sulphate of Magnesia.*)

Dose, for an adult, one ounce, dissolved in a tumblerful of water. Take on an empty stomach. A quick purgative, useful in fevers and inflammations.

No. 7. Castor Oil.

Dose, for an adult, one ounce, or two tablespoonfuls. For children, from one teaspoonful to a tablespoonful, according to age.

This is a mild and excellent purgative for children, old people, and persons who are much debilitated.

No. 8. Rochelle or Seidlitz Powders.

One may be taken before breakfast, when a laxative is required.

3. INJECTIONS. (*Enemata.*)

INJECTIONS are used either as auxiliaries to, or substitutes for, cathartics, for the purpose of procuring a discharge from the bowels. They are also occasionally used for other purposes.

The quantity required for a child between the ages of one and five years, is about one gill; for a youth twelve to fifteen years, half a pint; for an adult, from a pint to a quart or two, according to circumstances. In all cases, a warm folded towel should be firmly pressed against the anus or bowel, for fifteen or twenty minutes after the injection is thrown up.

THE SYRINGE OR INJECTION PIPE. This is an article which every family should have, and keep in good order, as it is often very useful in sickness. No traveller should proceed on his journey without one. The best syringe now in the market, known to the writer, is the Davidson Syringe; but a common instrument will answer very well. After using a syringe, it should always be well cleaned and carefully dried before being put away.

No. 9. Warm Water.

This is a very simple and useful injection, and may be used to relieve constipation, or aid cathartics. A little soap may sometimes be added to advantage.

No. 10. Cold Water.

This is a useful injection in piles (hemorrhoids), especially the internal, or bleeding kind. It should be used just previous to evacuating the bowels.

No. 11. Salt and Water.

Take of Common Fine Salt, ...	1 ounce.
Warm Water, ...	1 quart.

Mix. An excellent injection for "Pin Worms."

No. 12. Purgative Injection.

Take of Castor Oil, ...	2 ounces.
Molasses, ...	4 ounces.
Common Fine Salt, ...	1 ounce.
Warm Water, ...	1 pint.

Mix. One half may be given to an adult at once, and the remainder in half an hour, if the first produces no evacuation.

4. DIURETICS.

DIURETICS are medicines which promote the secretion of urine. They are sometimes useful in dropsical affections, fevers, and inflammations.

No. 13. Sweet Spirit of Nitre. (*Spirit of Nitric Ether.*)

Dose for an adult, from one half teaspoonful to a teaspoonful.

It may be taken two or three times a day when necessary. Useful in fevers, inflammations, dropsical affections, &c.

No. 14. Parsley Root.

Take of Parsley Root (bruised), . . . 1 ounce.
Boiling Water, ... 1 pint.

Steep an hour or longer, and strain. A teacupful may be taken, either alone or with a teaspoonful of sweet spirit of nitre, every three or four hours.

This is an excellent diuretic in dropsical affections.

No. 15. Mixture of Acetate of Potassa and Spirit of Mindererus.

Take of Spirit of Mindererus, ... 2 ounces.
Acetate of Potassa, ... 2 drachms.

Mix. Dose, a tablespoonful every three hours.

Very good for gravel and lithic acid deposits. Also useful in fevers.

No. 16. Mixture of Buchu and Uva Ursi.

Take of Fluid Extract of Buchu, . . . ½ ounce.
Fluid Extract of Uva Ursi, . . . ½ ounce.
Syrup of Gum Arabic, ... 1 ounce.
Spearmint Water, ... 2 ounces.

Mix. Take two teaspoonfuls every three hours. Useful in gleet, atony and paralysis of the bladder.

No. 17. Mixture of Copaiba.

Take of Balsam of Copaiba, ... 1 ounce.
Sweet Spirit of Nitre, ... 1 ounce.
Powdered Gum Arabic, . . . ½ ounce.
Powdered White Sugar, . . . ¼ ounce.

Distilled Water, ...	4 ounces.
Compound Spirit of Lavender, . .	½ ounce.
Tincture of Opium, ...	2 drachms.

Mix in a bottle. First the balsam and nitre; then put into a mortar the gum arabic and sugar, and while mixing them with the pestle, add gradually the water. Continue the stirring until dissolved, then add to the balsam and nitre, and shake well; lastly, add the spirit of lavender and tincture of opium.

Shake before using. Useful in gonorrhœa. Dose, one tablespoonful three times a day.

No. 18. Mixture of Copaiba, Cubebs, &c.

Take of Balsam of Copaiba, ...	1 ounce.
Powdered Cubebs, ...	1 ounce.
Powdered Gum Arabic, . . .	½ ounce.
Powdered White Sugar, . . .	½ ounce.
Water, ...	14 ounces.
Camphorated Tincture of Opium, . .	1 ounce.

Mix. Shake before using. Take a tablespoonful three times a day. Useful in gonorrhœa and gleet.

No. 19. Another Form.

Take of Balsam of Copaiba, ...	1 ounce.
Oil of Cubebs, ...	2 drachms.
Liquor Potassæ, ...	2 drachms.
Sweet Spirit of Nitre, ...	½ ounce.
Compound Tincture of Lavender, . .	2 drachms.
Tincture of Opium, ...	2 drachms.
Syrup of Gum Arabic, ...	1½ ounces.

Mix. Shake before using. Take one teaspoonful four times a day. For gonorrhœa and gleet.

5. DIAPHORETICS.

Diaphoretics are medicines which promote perspiration, or sweating.

No. 20. Dover's Powder.

In doses of five to ten grains, this powder has a diaphoretic effect. To promote its operation warm drinks may be freely taken, but not immediately after the dose, lest vomiting be induced.

No. 21. Spirit of Mindererus, Sweet Spirit of Nitre, &c.

Take of Spirit of Mindererus,	2 ounces.
Sweet Spirit of Nitre,	1 ounce.
Tincture of Opium,	1 drachm.

Mix. A teaspoonful may be taken three or four times a day, for fevers and inflammations.

No. 22. Sweating Drops.

Take of Powdered Virginia Snakeroot,	2 drachms.
Powdered Ipecac,	2 drachms.
Powdered Camphor,	2 drachms.
Saffron,	2 drachms.
Powdered Opium,	2 drachms.
Hollands Gin, or Diluted Alcohol,	12 ounces.

Mix, and let stand fourteen days, shaking occasionally; then express, and filter through paper. This is an excellent preparation, and may be used in most cases where a diaphoretic is required. It also lessens pain, allays nervous excitability, and promotes sleep. One teaspoonful may be taken in warm water, every third or fourth hour. The feet may be well soaked in hot water previous to taking the drops, and, while in bed, a hot brick, flat-iron, or bottle of hot water should be placed to them.

No. 23. Sweet Spirit of Nitre.

Half a teaspoonful to a teaspoonful, once in three or four hours, will act as a gentle diaphoretic. Warm sage or pennyroyal tea will promote its operation.

INFUSION OF SAGE OR PENNYROYAL.

Both sage and pennyroyal are good diaphoretics. One ounce of either may be steeped for half an hour in a pint of boiling water; then strain, and drink freely while warm. Excellent to promote perspiration after exposure to cold. The patient should be in bed, well covered, and with a hot brick or flat-iron at his feet.

6. EXPECTORANTS.

EXPECTORANTS are medicines which promote mucous discharges from the air passages and lungs. They are "cough medicines," and require to be repeated every two to four hours.

No. 24. Syrup of Squills, Senega, and Ipecac.

Take of Syrup of Balsam of Tolu, . . . 1 ounce.
Syrup of Squills, ... ½ ounce.
Syrup of Senega, ... 1 ounce.
Syrup of Ipecac, ... ½ ounce.
Paregoric, ... 1 ounce.

Mix. Take a teaspoonful every three hours.

No. 25. Syrup of Squills and Ipecac with Paregoric.

Take of Syrup of Squills, ... 1 ounce.
Syrup of Ipecac, ... 1 ounce.
Paregoric, ... 1 ounce.

Mix. This preparation is relaxing and soothing, and may be given with benefit, when the patient has a troublesome cough, with deficient expectoration.

No. 26. Another.

Take of Syrup of Balsam of Tolu, . . . 1½ ounces.
Syrup of Ipecac, ... 1 ounce.
Syrup of Squills, ... ½ ounce.
Camphorated Tincture of Opium, . . 1 ounce.

Mix. Dose, for an adult, one teaspoonful three or four times a day. Children in proportion to age.

No. 27. Mixture of Bloodroot, Wild Cherry, &c.

Take of Acetate of Morphia, ... 2 grains.
Tincture of Bloodroot, ... 2 drachms.
Wine of Antimony, . . . 3 drachms.
Wine of Ipecac, ... 3 drachms.
Syrup of Wild Cherry, ... 3 ounces.

Mix. Dose, a teaspoonful. Useful in catarrhal affections, bronchitis, and influenza.

No. 28. Mixture with Bicarbonate of Soda, &c.

Take of Bicarbonate of Soda,	36 grains.
Wine of Ipecac,	1 drachm.
Tincture of Opium,	24 drops.
Simple Syrup,	1½ ounces.
Pure Water,	1½ ounces.

Mix. Give a teaspoonful every three hours. This preparation is designed for children, and is chiefly used in whooping-cough.

7. INHALATION.

INHALATION is a means of applying remedies directly to the air passages and lungs, and when judiciously used, in connection with other appropriate treatment, much benefit may be derived therefrom. I will mention a few preparations which may, in appropriate cases, be inhaled with benefit, in the form of vapor. A proper inhaler is requisite, and I know of no one superior to the kind which I use in my practice. The price is but one dollar ($1.00), and it can be forwarded by Express to any part of the country.

No. 29. Compound Mixture of Iodine.

Take of Iodine,	6 grains.
Iodide of Potassium,	12 grains.
Distilled Water,	2½ ounces.
Alcohol,	1 ounce.
Fluid Extract of Conium,	½ ounce.

Mix. Shake before using.

Put one to two teaspoonfuls of the mixture into the inhaler, and fill it about half full of hot water. Inhale ten or fifteen minutes, three times a day.

In incipient consumption, chronic bronchitis, and obstinate coughs, this will generally prove very beneficial. It should not be used in cases where there is acute inflammation.

No. 30. Soothing Inhalant.

Take of Tincture of Opium,	1 ounce.
Tincture of Stramonium,	1 ounce.
Tincture of Conium,	1 ounce.

Mix. Use one teaspoonful, two or three times a day, in the same manner as directed to use the preceding mixture.

Useful in harsh coughs, in bronchitis and consumption. Excellent in some asthmatic cases.

No. 31. Stramonium Inhalation.

This is serviceable in *Asthma.*

Smoke the dried leaves in a common tobacco pipe. Persons unaccustomed to the remedy find one pipeful sufficient, while others can bear three or four in the course of a day, during a fit of the *Asthma.*

8. EMMENAGOGUES.

EMMENAGOGUES are medicines which promote the menstrual discharge, or restore it when entirely suppressed.

No. 32. Tincture of Iron, Aloes and Myrrh, and Castor.

Take of Tincture of Chloride of Iron,	. .	½ ounce.
Tincture of Aloes and Myrrh,	. .	½ ounce.
Tincture of Castor,	. . . .	2 drachms.

Mix. Take thirty drops in a wineglassful of water three times a day.

This preparation is excellent in cases where there is general debility, &c.

No. 33. Tincture of Aloes and Canella. (*Picra.*)

A teaspoonful may be taken in sweetened water, three times a day. A very good remedy in many cases of suppression of the menstrual flow.

9. ANTHELMINTICS.

ANTHELMINTICS are medicines which are taken to destroy and bring away worms from the alimentary canal. They are frequently termed vermifuges.

No. 34. Mixture with Oil of Wormseed.

Take of Oil of Wormseed,	. . . .	1½ drachms.
Castor Oil,	. . . . .	3 ounces.
Oil of Anise,	. . . . .	10 drops.

Mix, and then add of Aromatic Syrup of Rhubarb, 1 ounce.

Shake the bottle well before using. Give a teaspoonful, night and morning, to a child 2 years old. An excellent preparation.

No. 35. Fluid Extract of Pinkroot and Senna with Santonin.

Take of Fluid Extract of Pink and Senna, . . 2 ounces.
Santonin, ... 16 grains.

Mix. Give a child, two years old, a teaspoonful night and morning, until purging takes place. This is very effectual for removing the common round-worm.

No. 36. Mixture of the Extract of Male Fern.

Take of Ethereal Fluid Extract of Male Fern, . ½ drachm.
Syrup of Gum Arabic, . . . 1 ounce.

Mix. Shake well before using.

Take one half at bedtime, and the remainder early in the morning, on an empty stomach. Used for tape-worm. If the worm does not come away in six or eight hours after the last dose, take some mild purgative, as castor-oil.

For Pin-Worms. — Injections are the most certain of all remedies for *ascarides*, or "pin-worms."

No. 37. Injection of Salt Water.

Take of Common Fine Salt, ... 1 ounce.
Warm Water, ... 1 quart.

Mix. One half or even the whole may be injected into the bowel of an adult, and retained fifteen minutes, if possible. It should be repeated once or twice a day, for a week or two. When used for children, let the quantity be in proportion to age. If the general health is below the proper standard, it should be improved by tonics, and other appropriate measures.

No. 38. Injection of Aloes.

Take of Powdered Aloes, ... ¼ ounce.
Water, ... 1 quart.

Mix. Use in the same way as the preceding.

10. STIMULANTS.

No. 39. Stimulants

Are medicines which increase and sustain the action of the heart. They are often useful in diseases characterized by great prostration,

and in convalescence from fevers, &c. Brandy, whiskey, wine, &c., are stimulants, and may be used in appropriate cases, in proper quantities, three to six times a day. The dose of brandy or whiskey should not, as a general rule, exceed one to two tablespoonfuls. If wine be used, about two ounces may be given.

ALCOHOLIC STIMULANTS should not be continued longer than they are required *as medicines*, for the daily use of spirituous liquors, by persons in health, is very injurious, and tends to undermine the constitution, and bring on serious and even fatal diseases of the brain, liver, and kidneys.

No. 40. Wine Whey.

Take of good milk, one half pint; heat to the boiling point; then add of sherry wine, one gill; strain, and add of white sugar one ounce, and a little nutmeg.

There are few mild stimulants more employed or more useful than wine whey. The dose must be regulated by the circumstances of the case. From one gill to a pint may be taken during the day.

No. 41. Egg-Nog.

Take of the White and Yolk of . . . . 4 eggs.
White Sugar, ... 1 ounce.
Beat well together, then add,
Sherry Wine, ... 2 ounces.
Water, ... 4 ounces.
Grated nutmeg to taste.

The above is sufficient for about four doses. Stimulant and nutritious.

No. 42. Milk Punch.

Take of Good Brandy, ... 1 gill.
Fresh Milk, ... ½ pint.
White Sugar . . . . . 1 ounce.
A little grated nutmeg.

Mix. A tablespoonful or more may be taken every hour or two in low fevers, and other diseases characterized by great prostration.

No. 43. Mixture of Carbonate of Ammonia.

Take of Carbonate of Ammonia, ... 2 drachms.
White Sugar, ... 3 drachms.
Powdered Gum Arabic, ... 3 drachms.
Spearmint Water, ... ½ pint.

Mix. Give a tablespoonful every two hours.

As carbonate of ammonia sustains the action of the heart, without stimulating the brain, it may be resorted to whenever the vital powers begin to fail, in diseases of nearly every type.

11. NARCOTICS.

NARCOTICS are medicines which are used to procure sleep, allay pain or spasm, arrest inordinate secretion, and control inflammatory action or irritation.

No. 44. Pills of Opium.

Take of Powdered Opium, ... 12 grains.
Powdered Castile Soap, ... 3 grains.

Mix, and form into twelve pills.

One is the ordinary dose for an adult to produce sleep, allay pain, &c.

No. 45. Pills of Sulphate of Morphia.

Take of Sulphate of Morphia, ... 2 grains.
Confection of Rose, ... 24 grains.

Mix, and divide into 12 pills.

One may be taken for a dose to allay pain, procure sleep, or check vomiting. If relief is not obtained in one hour, give the second pill. Except in severe cases, they should not be repeated oftener than every three to six hours. They should never be taken unless actually required.

No. 46. Pills of Camphor and Opium.

Take of Powdered Camphor, ... 2 scruples.
Extract of Opium, ... 8 grains.

Add of mucilage of Tragacanth, a sufficient quantity to form a pill mass. Divide into sixteen pills. Take two pills every night at bedtime. Used for spasm of the urethra, and to prevent nocturnal erections, or chordee.

No. 47. Dover's Powder.

The ordinary dose for an adult is ten grains, to promote sleep, allay pain, &c. It may be mixed with molasses or sugar and water.

No. 48. Pills of Camphor, Assafœtida, &c.

Take of Powdered Camphor, ... 1 drachm.
Powdered Assafœtida, ... 1 drachm.
Extract of Belladonna, ... ½ drachm.
Extract of Opium, ... 10 grains.

Mix thoroughly, and divide into sixty pills. One pill may be

given morning and night, or at shorter intervals, according to the urgency of the case.

Used in *hysteria*, &c.

No. 49. Laudanum. (*Tincture of Opium.*)

The ordinary dose for an adult is twenty-five drops. A youth of fourteen may take fifteen drops, a child four to five years of age, three to five drops. Very young children do not bear well preparations of opium, although *one or two drops* may be given with safety to a child between six months and one year of age.

No. 50. Paregoric. (*Camphorated Tincture of Opium.*)

This preparation is used more for children than adults.

Dose for a child one month old, . . .	2 to 3 drops.
From three months to one year, .	3 to 10 drops.
From one to three years, . .	10 to 20 drops.
From three to five years, . .	20 to 30 drops.

Useful to allay pain and promote sleep.

No. 51. Carminative Drops for Infants.

Take of Carbonate of Magnesia, ...	30 grains.
Wine of Opium, ...	15 drops.
Syrup of Gum Arabic, ...	3 drachms.
Cinnamon Water, ...	5 drachms.

Mix. Shake before using. Dose, ten drops for a child three or four days old. For older children the dose may be proportionately increased.

Used to correct colicky pains, &c., in infants.

No. 52. Another Form.

Take of Carbonate of Magnesia, ...	30 grains.
Tincture of Assafœtida, ...	10 drops.
Tincture of Opium, ...	20 drops.
Powdered White Sugar, ...	1 drachm.
Pure Water, ...	1 ounce.

Mix. Shake before using. Twenty-five drops may be given to an infant two to four weeks old, for wind colic, diarrhœa, &c

12. ANTI-SPASMODICS.

ANTI-SPASMODICS are those medicines which allay spasm, and compose the irregular actions of the nervous system.

No. 53. Pills of Assafœtida and Soap.

Take of Powdered Assafœtida, ... 1 drachm.
Powdered Castile Soap, ... 10 grains.

Mix well, and form into twenty pills. Two of these pills may be taken for a dose, and repeated once or twice a day when necessary.

Useful in hysteria, and in colicky pains arising from wind in the bowels.

No. 54. Pills of Oxalate of Cerium.

Take of Oxalate of Cerium, ... 15 grains.
Extract of Gentian, ... 5 grains.

Mix, and divide into ten pills.

Take one pill, three times a day, — one hour after each regular meal.

Used to relieve the sick stomach of pregnancy.

No. 55. Pills of Valerianate of Zinc.

Take of Valerianate of Zinc, ... 12 grains.
Confection of Rose, ... 24 grains.

Mix, and divide into twelve pills. Give one pill every three hours.

Used in neuralgia, epilepsy, and anomalous nervous diseases.

No. 56. Hoffman's Anodyne and Laudanum.

Take of Hoffman's Anodyne, ... 3 drachms.
Tincture of Opium, ... 1 drachm.
Camphor Water, ... 3 ounces.
Peppermint Water, ... 3 ounces.

Mix. Shake before using.

A tablespoonful may be given every two hours, in hysteria, and to quiet restlessness and morbid vigilance.

No. 57. Mixture of Cimicifuga. (*Black Cohosh, — Black Snakeroot.*)

Take of Fluid Extract of Cimicifuga, . . . ½ ounce.
Syrup of Gum Arabic, ... 1½ ounces.
Syrup of Orange Peel, ... 1 ounce.

Mix. Give a teaspoonful every three hours. The dose may be gradually increased to two teaspoonfuls or more. This is a remedy of much value in the treatment of diseases of the nervous system, and especially in St. Vitus' dance (chorea), and whooping-cough.

No. 58. Assafœtida Injection.

Take of Tincture of Assafœtida, . . . 2 drachms.
Thin Prepared Starch, . . . 4 ounces
Mix, for an injection. It may be given in hysteria, spasmodic colic, &c.

One half the quantity may be safely given to a young child in convulsions.

13. TONICS.

Tonics are medicines which impart strength to the system, without subjecting it to any preternatural excitement during their operation.

No. 59. Mixture of Tincture of Chloride of Iron.

Take of Tincture of Chloride of Iron, . . 2 drachms.
Glycerine, or Pure Water, . . 14 drachms.
Mix. Dose, one teaspoonful in a wineglass of water three or four times a day.

Valuable as a tonic in low states of the system. Excellent in erysipelas; also in chronic diarrhœa and other exhausting discharges.

The Tincture of Chloride of Iron may be taken in simple water, without the glycerine, although that article very much improves the taste of the medicine, and *may* do good in other ways, especially in consumptive cases.

No. 60. Mixture of Ammonio Citrate of Iron.

Take of Ammonio Citrate of Iron, . . . 2 drachms.
Pure Water, ... 2 ounces.
Tincture of Quassæ, ... $\frac{1}{2}$ ounce.
Tincture of Cardamon, . . . $\frac{1}{2}$ ounce.
Mix. Dose, a teaspoonful, in water, three or four times a day.
Useful in chlorosis, debility, &c.

No. 61. Tincture of Chloride of Iron and Nitric Acid.

Take of Tincture of Chloride of Iron, . . 2 drachms.
Diluted Nitric Acid, ... 2 drachms.
Syrup of Ginger, ... $3\frac{1}{2}$ ounces.
Mix. Take a teaspoonful in a wineglassful of water three or four times a day.

Good as a tonic and astringent. Often useful in consumptive cases accompanied by night sweats.

No. 62. Wine of Iron.

Take of Tartrate of Iron and Potassa, . . . ½ ounce.
Sherry Wine, ... 1 pint.

Dissolve and filter. A good tonic. An adult may take one tablespoonful three times a day. Children in proportion to age.

No. 63. Mixture of Citrate of Iron and Quinia.

Take of Citrate of Iron and Quinia, . . . 2 drachms.
Pure Water, ... 3 ounces.

Mix. Dose, one teaspoonful three times a day. It may be taken in a little water. An excellent tonic in most cases of debility.

No. 64. Elixir of Pepsin.

Take of Pepsin (Boudault), ... 1½ drachms.
Pure Water, ... 6½ drachms.
Sherry Wine, ... 12½ drachms.
Alcohol, ... 3 drachms.
White Sugar, ... 1 ounce.

Mix thoroughly and strain.

A tablespoonful may be taken immediately after each meal in cases of indigestion. Children may take from half a teaspoonful to a teaspoonful.

No. 65. Tonic and Laxative Mixture.

Take of Tincture of Colombo, ... 2 ounces.
Compound Tincture of Gentian, . . ½ ounce.
Tincture of Rhubarb, ... 1 ounce.
Syrup of Ginger, ... ½ ounce.

Mix. Dose, one to two teaspoonfuls, in a little water, before meals, in dyspepsia, constipation, debility, &c.

No. 66. Stimulant and Tonic.

Take of Tincture of Peruvian Bark, . . . 1 ounce.
Tincture of Colombo, ... 1 ounce.
Compound Tincture of Gentian, . . 1 ounce.
Syrup of Orange Peel, . . . ½ ounce.
Syrup of Ginger, ... ½ ounce.

Mix. Dose, one to two teaspoonfuls in water, before meals. Useful in debility, loss of appetite, dyspepsia, &c.

The *Compound Tincture of Peruvian Bark*, in one to two teaspoonful doses, is a good tonic. The same may be said of the *Compound Tincture of Gentian* (Stoughton's Elixir).

14. ALTERATIVES.

ALTERATIVES are medicines which reëstablish the healthy functions of the animal economy, without producing any active evacuation.

No. 67. Mixture of Iodide of Potassium and Sarsaparilla.

Take of Iodide of Potassium, ... 8 scruples.
Compound Syrup of Sarsaparilla, . . 3½ ounces.
Fluid Extract of Stillingia, . . . ½ ounce.

Mix. Dose, a teaspoonful three times daily, after meals. It should be taken in about a wineglassful of water.

This is an excellent preparation, and may be used in scrofula, secondary syphilis, and obstinate skin diseases. It can be given advantageously in most cases requiring an alterative.

No. 68. Syrup of Iodide of Iron.

Dose, ten to twenty drops, in water, three times a day. This is a good alterative and tonic in scrofulous affections, accompanied with debility.

No. 69. Pills of Protoiodide of Mercury.

Take of Protoiodide of Mercury, . . . 24 grains.
Powdered Extract of Licorice, . . 48 grains.

Mix, and divide into twenty-four pills. Take one, three times a day, in syphilis.

No. 70. Cod-Liver Oil.

Dose, for an adult, one tablespoonful, three times a day, one hour after each regular meal. Children may take from one to two teaspoonfuls. It may be taken with a little porter, ale, milk, wine, whiskey, or brandy, according to preference. I often order it with sherry wine, giving about four times as much wine as oil. If the taste is objectionable, three or four drops of some essence may be added to each dose, and a few mint drops allowed to dissolve in the mouth after taking it.

This oil is very beneficial in the early stages of pulmonary consumption, also in scrofulous affections, and in general debility arising from poor blood. Good substantial food should at the same time be taken.

15. ASTRINGENTS.

ASTRINGENTS are such substances as, applied to the human body, produce contraction and condensation of the soft solids, and thereby increase their density and force of cohesion.

No. 71. Pills of Tannin and Opium.

Take of Tannic Acid, ... 20 grains.
Powdered Opium, ... 5 grains.

Glycerine, a sufficient quantity to form a pill mass; then divide into ten pills. One may be taken every two or three hours, in diarrhœa, after the bowels have been thoroughly moved by rhubarb or castor oil.

No. 72. Powders of Gallic Acid.

Take of Gallic Acid, ... 2 drachms.
Powdered Opium, ... 6 grains.

Mix, and divide into twelve powders. Take one powder in molasses, or sugar and water, every three hours.

Useful in bleeding from the lungs, kidneys, and uterus.

No. 73. Compound Mixture of Hardhack.

Take of Fluid Extract of Hardhack, . . ½ ounce.
Compound Spirit of Lavender, . . ½ ounce.
Syrup of Gum Arabic, . . . 1 ounce.

Mix. Dose for a child, from half a teaspoonful to a teaspoonful three or four times a day, in diarrhœa.

No. 74. Mixture of Hardhack, Catechu, Laudanum, &c.

Take of Fluid Extract of Hardhack, . . . 1 ounce.
Tincture of Catechu, ... 1 ounce.
Brandy, ... 1 ounce.
Laudanum, ... 1 ounce.

Mix. Dose for an adult, one teaspoonful. It may be taken every three or four hours, if necessary, in diarrhœa, after the bowels have been moved by some cathartic, as rhubarb, castor-oil, or Epsom salts.

No. 75. Astringents for External Use.

Tannin, powdered matico leaves, alum, &c., are often useful to check bleeding from superficial wounds.

In bleeding from the nose, they may be used in solution, or the dry powder may be used as snuff.

16. ANTACIDS.

ANTACIDS are remedies for correcting acidity in the stomach and bowels. Bicarbonate of Soda, Saleratus, and Carbonate of Magnesia are good antacids. Fluid Magnesia is excellent. If the patient is dyspeptic, appropriate tonics and regulation of the diet will be required.

No. 76. Bicarbonate of Soda.

Dissolve from half a teaspoonful to a teaspoonful in a tumblerful of water, and drink as occasion requires, in acidity of the stomach, or "heartburn."

No. 77. Powder of Magnesia and Colombo.

Take of Calcined Magnesia, ...	1½ drachms.
Powdered Colombo, ...	1 drachm.
Powdered Ginger, ...	10 grains.

Mix, and divide into ten powders. One may be taken three times a day in sugar and water. Useful in acidity of the stomach.

17. CAUSTICS.

No. 78. Lunar Caustic. (*Nitrate of Silver.*)

This is often useful when passed lightly over old ulcers or sores. It stimulates them to take on a healthy or healing action.

When used as a *caustic*, it should be pressed against the surface for a few seconds.

BURNT ALUM. — This may be applied in powder to fungous granulations — "proud flesh" — of ulcers.

No. 79. Nitric Acid.

This is a very powerful caustic, and must be used with great caution. To destroy a venereal ulcer, or chancre, dip a glass rod, or a piece of wood, shaped like a pen-handle, into the acid, and

pass it over the whole surface to be destroyed. Let it remain on a moment, and then wash off with pure water. It is quite painful while on, but soon after being washed off the pain ceases. Some soothing and astringent wash may be used, two or three times a day, after the caustic has been applied.

18. EPISPASTICS. BLISTERS.

EPISPASTICS are those articles which produce a serous or watery discharge beneath the cuticle, — the *blister* of common language.

No. 80. Blistering Plaster.

This may be made by spreading blistering ointment on leather, cloth, or adhesive plaster. It may be of any size required, from one to six or eight inches square. It should remain on the part until a good blister has formed; then remove it, and dress the blister with simple ointment, or sweet oil. This is sometimes termed a "Fly-blister," the active ingredient being cantharides, — Spanish flies.

AQUA AMMONIA, MUSTARD, and some other articles will "blister," but the ordinary *fly-blister* is preferable in most cases.

19. RUBEFACIENTS.

RUBEFACIENTS are substances which irritate, and sometimes blister, on very delicate skins, especially if kept long on the part.

No. 81. Mustard Plaster.

Take of Powdered Black Mustard, . . . 1 ounce.
Water, sufficient to make a paste or poultice.

The uses of the mustard plaster are too well known to require description. It is sometimes made by adding an equal quantity of flaxseed or Indian meal; this should always be done for children, or persons of delicate skins. It should be kept on as long as it can be borne, which will not generally be longer than half an hour.

No. 82. Ground Black Pepper.

If mustard is not at hand, this may be taken as a substitute.

No. 83. Onion Poultice.

Onions are often used in cases of croup, and in diseases of the chest in children, as revulsives and antispasmodics.

Having been partially roasted, mashed, and spread between the folds of thin muslin, they may be applied over the chest, and permitted to remain as long as they retain their warmth and moisture.

No. 84. Volatile Liniment.

Take of Olive Oil, ... 2 ounces.
Water of Ammonia, ... 1 ounce.

Mix. This may be used for sprains, bruises, enlarged glands, &c. It is also beneficially applied to the neck, in inflammatory troubles of the throat, croup, &c.

No. 85. Croton Oil Liniment.

Take of Croton Oil, ... 1 drachm.
Olive Oil, ... 3 drachms.

Mix. Croton oil is one of our safest and most efficient rubefacients. It should be rubbed *very lightly* upon the part, morning and night, until a crop of pimples begin to appear; then discontinued for a time. Two rubbings will generally be sufficient. When the little vesicles begin to dry up, re-apply it if necessary.

No. 86. Iodine Paint. (*Tincture of Iodine.*)

This may be well rubbed over the part, once or twice a day, by means of a camel's-hair brush. Useful when applied to glandular swellings, inflamed or enlarged joints, &c.

20. EYE WASHES.

No. 87. Sulphate of Zinc Eye Wash.

Take of Sulphate of Zinc, ... 2 grains.
Rose Water, ... 1 ounce.

Mix. Drop a little into the eye, two or three times a day, when sore or inflamed.

No. 88. Acetate of Zinc Eye Wash.

Take of Acetate of Zinc, ... 2 grains.
Rose Water, ... 1 ounce.

Mix. Use three or four times a day, for sore eyes.

No. 89. Sugar of Lead Eye Wash.

Take of Sugar of Lead, ... 2 grains.
Rose Water, ... 1 ounce.

Mix. Excellent for inflamed eyes. It should be used two or three times a day.

No. 90. Nitrate of Silver Eye Wash.

Take of Nitrate of Silver (crystals), . . . 1 grain.
Distilled Water, ... 1 ounce.

Mix. Use by dropping a little into the eye twice a day, in acute inflammation, or to cause specks to disappear.

21. WASHES, &c.

FOR THE EAR.

No. 91. Goulard's Extract and Rose Water.

Take of Goulard's Extract (Liquid Subacetate of Lead), ... ½ drachm.
Glycerine, ... 1 drachm.
Rose Water, ... 2 ounces.

Mix. This may be dropped into the ear, until the cavity is full, and be allowed to remain there for a few minutes. Use morning and night. For running from the ear.

No. 92. Solution of Nitrate of Silver.

Take of Nitrate of Silver, ... 10 grains.
Distilled Water, ... 1 ounce.

Mix. Used in ulceration, attended by discharges of matter (pus) from the ear. Dip a camel's-hair brush into the solution, and apply every second or third day. Between the applications use R. 91.

No. 93. Borax and Glycerine Injection.

Take of Powdered Borax, ... 5 grains.
Glycerine, ... 2 drachms.
Rose Water, ... 6 drachms.

Mix. Useful in checking discharges from the ear. Use morning and night. First "syringe" the ear with simple warm water, then throw in a little of this preparation.

22. INJECTIONS.

FOR THE URETHRA.

When injections are employed in the cure of gonorrhœa, two circumstances merit especial attention, viz.: the manner of injecting them, and the frequency of using them. The hard-rubber penis syringe is to be preferred, but a glass one, with a smooth point, will answer. The patient should oil the pipe before using it, seat him-

self on the edge of a bed or chair, draw the penis upward on the syringe with the left hand, and with the other throw the injection to the seat of the disease. With regard to the frequency of injecting, I will say that weak injections should be used from three to six times a day; strong ones, once or twice.

In using ordinary injections, such as sulphate or acetate of zinc, of medium strength, three or four times a day will answer.

No. 94. Nitrate of Silver.

This article is much used both in gonorrhœa and gleet. Some practitioners employ a weak solution of two grains to eight ounces of water, and use it three or four times a day; others prefer two or three grains to the ounce, and use it once or twice a day. I prefer the weaker solution.

No. 95. Injections of Sulphate of Zinc and Laudanum.

Take of Sulphate of Zinc, ... 10 grains.
Powdered Gum Arabic, ... 20 grains.
Laudanum, ... 2 drachms.
Pure Water, ... 8 ounces.

Mix. Excellent in gonorrhœa and gleet. Use three or four times a day.

No. 96. Injection of Acetate of Zinc.

Take of Acetate of Zinc, ... 8 grains.
Rose Water, ... 4 ounces.

Mix. Inject three times a day, in gonorrhœa and gleet.

No. 97. Injection of Chloride of Zinc.

Take of Chloride of Zinc, ... 4 grains.
Water, ... 4 ounces.

Mix. Use as an injection, two or three times a day, in gonorrhœa and gleet.

23. VAGINAL INJECTIONS.

No. 98. Injection of Chloride of Soda.

Take of Solution of Chloride of Soda, . . . 1 ounce.
Water, ... 9 ounces.

Mix. A cleansing and antiseptic injection, to be used two or three times a day, when required.

No. 99. Injection of Sulphate of Zinc.

Take of Sulphate of Zinc, ... 1 drachm.
Water. . . . . 1 pint.

Mix. Use, with a proper female syringe, three times a day, in leucorrhœa and gonorrhœa. The injection should be taken when lying down, with the hips raised, so that it may be retained ten or fifteen minutes, for if it passes away immediately, little good will be derived from it.

No. 100. Injection of Sugar of Lead.

Take of Sugar of Lead, ... 1 drachm.
Water, ... 1 pint.

Mix. Useful in leucorrhœa and gonorrhœa. Should be used three times a day.

No. 101. Injection of Nitrate of Silver.

Take of Nitrate of Silver, ... 30 grains.
Distilled or Pure Water, . . . 1 pint.

Mix. Use morning and night, in leucorrhœa and gonorrhœa.

24. GARGLES AND MOUTH WASHES.

No. 102. Gargle of Borax and Myrrha.

Take of Powdered Borax, ... 1 drachm.
Tincture of Myrrha, ... ½ ounce.
Pure Honey, ... 1 ounce.
Rose Water, or Pure Water, . . . 4 ounces.

Mix. An excellent gargle for sore mouth, scorbutic affections of the gums, &c. Use three or four times a day.

No. 103. Gargle of Sulphate of Zinc.

Take of Sulphate of Zinc, ... 30 to 60 grains.
Water, ... 1 pint.

Mix. Use three or four times a day. Excellent in many cases of sore throat, where a stimulating and astringent gargle is required.

No. 104. Gargle of Alum.

Take of Powdered Alum, ... 2 drachms.
Water, ... ½ pint.

Mix. Useful in sore mouth, inflammation of the tonsils, &c.

No. 105. Gargle of Alum, Sage Tea, and Honey.

Take of Sage, ... ½ ounce.
Boiling Water, ... ½ pint.
Make an infusion or tea, and strain; then add
Powdered Alum, ... ¼ ounce.
Honey, ... 1 ounce.

Mix and shake well. This domestic remedy is very effectual in cases of sore throat.

No. 106. Chlorate of Potassa Gargle.

Take of Powdered Chlorate of Potassa, . . 2 drachms.
Pure Water, ... 4 ounces.

Mix. A very useful gargle in sore throat, diphtheria, aphthæ, or thrush, &c. Use three to six times a day.

SOLUTION OF SULPHITE OF SODA.

Take of Sulphite (not *Sulphate*) of Soda, . . 1 drachm.
Rose Water, ... 1 ounce.

Mix. To be applied, with a camel's-hair brush, to sore mouth, aphthæ, &c. Use three or four times a day. This is generally preferable to the chlorate of potassa gargle, for the sore mouths of infants.

No. 107. Lotion of Muriatic Acid.

Take of Muriatic (Hydrochloric) Acid, . . ½ drachm.
Pure Honey, ... 1 ounce.
Rose Water, ... 1 ounce.

Mix. To be applied, three times a day, with a camel's-hair brush, to scorbutic gums, or ulcers about the mouth.

25. LINIMENTS, WASHES, &c.

No. 108. Opium Liniment.

This is an excellent liniment to be applied to painful parts, rheumatic joints, sprains, bruises, &c. Use three or four times a day.

No. 109. Soap Liniment. (*Opodeldoc.*)

A liniment much used in rheumatism, sprains, &c. To be applied several times a day.

No. 110. Volatile Liniment.

A good liniment for chronic rheumatic pains, sprains, sore throat, &c. Use three times a day.

No. 111. Chloroform Liniment.

Take of Chloroform, ... 1 ounce.
Sulphuric Ether, ... 1 ounce.
Spirit of Camphor, ... 1 ounce.
Tincture of Opium, ... 1 ounce.

Mix. Use three times a day. Excellent for rheumatic pains, sprains, &c.

No. 112. Black Wash.

Take of Calomel, ... 1 drachm.
Lime Water, ... ½ pint.

Mix. A good application to venereal sores, chancres, &c.

No. 113. Lotion of Borax and Glycerine.

Take of Powdered Borax, ... 30 grains.
Glycerine, ... 1 ounce.
Rose Water, ... 5 ounces.

Mix. Used for chapped hands, fissures of the lips, sore nipples, and irritation of the skin of any kind.

No. 114. Glycerine Lotion.

Take of Glycerine, ... 1 ounce.
Rose Water, ... 1 ounce.

Mix. This is an emollient and soothing lotion, useful in chaps, excoriations, eczema, and scaly affections of the skin.

No. 115. Lotion of Tannin and Glycerine.

Take of Tannic Acid, ... 2 drachms.
Glycerine, ... 1 ounce.

Mix. Excellent for sore nipples, bed sores, piles, &c. It may be applied two or three times a day.

No. 116. Lotion of Ammonia, Glycerine, &c.

Take of Aromatic Spirits of Ammonia, . . ½ ounce.
Glycerine, ... 1½ ounces.
Tincture of Spanish Flies, . . . 3 drachms.
Water of Rosemary, ... 6 ounces.

Mix. Used for falling off of the hair, dryness or want of action of the scalp, thinness of the hair, &c. Apply with a hair brush once or twice a day.

No. 117. Lotion of Carbolic Acid and Glycerine.

Take of Carbolic Acid (Crystals), . . . 2 drachms.
Glycerine, ... 1 ounce.
Rose Water, ... 1 ounce.

Mix. Useful when applied to foul ulcers, sores, wounds, and in some forms of skin diseases. Apply twice a day.

No. 118. Another.

Take of Carbolic acid (Crystals), . . . 2 drachms.
Boiled Linseed Oil, ... 2 ounces.

Mix. Useful in the same cases as the above. To be applied two or three times a day.

26. OINTMENTS.

No. 119. Simple Ointment.

Take of Fresh Lard, ... 3 ounces.
White Wax, ... 1 or 2 ounces.
Oil of Sweet Almonds, ... 1 ounce.

Melt together, and stir until cool. If for winter use, one ounce of white wax will be sufficient, but if for warm weather, use two ounces. A few drops of oil of rose, added when nearly cool, will give it a fine odor, but this is not essential.

Useful in dressing wounds, burns, scalds, blisters, cuts, and sores of almost every description.

No. 120. Resin Ointment. (*Basilicon Ointment.*)

Take of Powdered Resin, ... 1 ounce.
Yellow Wax, ... ½ ounce.
Fresh Lard, or Simple Ointment, . . 2 ounces.

Melt with a gentle heat, strain through flannel, and stir constantly until cool.

Useful in dressing indolent ulcers, sores, wounds, &c., where something more stimulating and adhesive than simple ointment is required.

No. 121. Compound Sulphur Ointment.

This can be bought at the apothecaries. Used for diseases of the skin — itch, ringworm, &c.

No. 122. Simple Sulphur Ointment.

Take of Lac Sulphur, ... ½ pound.
Fresh Lard, ... 1 pound.
Oil of Bergamot, ... 2 drachms.
Mix well. Used in itch.

In making simple sulphur ointment, the sublimed sulphur is generally used, but I prefer the precipitated or lac sulphur.

No. 123. Benzoated Ointment of Oxide of Zinc.

This can be obtained of apothecaries. A mild astringent application for ulcers, wounds, excoriations, burns, &c.

No. 124. Ointment of Tar and Citrine Ointment.

Take of Tar Ointment, ... 1 ounce.
Citrine Ointment, ... ½ ounce.
Mix. Useful in *tinea capitis* — scald head, &c.

No. 125. Ointment of Tannate of Lead.

Take of Tannate of Lead, ... 1 drachm.
Glycerine . . . . . 2 drachms.
Simple Ointment, ... 1 ounce.
Mix. A sedative and astringent application for sore nipples, chapped surfaces, bed sores, &c.

27. POULTICES. (*Cataplasms.*)

No. 126. Flaxseed-Meal Poultice.

Take of flaxseed meal, a sufficient quantity. Pour boiling water upon it, and stir constantly until the poultice has a soft, pulpy consistence. This may be used with advantage in almost all cases requiring a poultice. If the part to which it is to be applied is painful, the surface of the poultice may be wet with laudanum. To prevent it from drying too soon, it may be covered with a little pure sweet oil.

No. 127. Bread and Milk Poultice.

Take the soft part of a portion of a loaf of stale bread, crumble it into a bowl or dish, and add milk to cover it. Simmer over a fire, occasionally stirring, until the bread is reduced to a pulpy consistence. The poultice may be applied as warm as the patient can bear it. This is a good poultice, and may be used when flaxseed meal is not at hand. If milk be not at hand, use water instead.

No. 128. Slippery-Elm Poultice.

Take of powdered or ground slippery-elm bark, a sufficient quantity. Moisten with hot water until it becomes a soft, pulpy mass. Apply warm. Used for the same purposes as the flaxseed poultice.

No. 129. Water Dressings.

WATER DRESSINGS may be either cold or warm, simple or medicated. Lint, or any soft absorbent fabric may be used for the purpose of maintaining the liquid in contact with the part.

No. 130. COLD WATER acts by depressing the vital force of the parts. It should be as cold as the patient can bear it with comfort, and needs renewal as often as the temperature rises, by the abstraction of heat from the part. Ice-water is an excellent application in many cases, especially to wounds of the head, wounds of joints, &c. A very good plan is to place old linen rags, soaked in ice-water, upon the part, and then to lay one or more small lumps of ice, folded up in another wet rag, upon the top; in this way the temperature may be kept down, and excessive inflammation prevented.

Astringents, anodynes, and refrigerants, — such as tannin, sugar of lead, laudanum, &c., — may be combined with cold water.

No. 131. WARM WATER has of itself a soothing and relaxing influence, upon any part to which it may be applied. Lint, flannel, or woollen rags may be used as a vehicle for it; and as any evaporation would lower its temperature, a piece of oiled silk, or of India-rubber cloth, if at hand, should be placed over it. Some surgeons discard the poultice entirely, preferring to use warm water; but, in fact, there is often a good deal of room for choice between the two.

Warm water is much more frequently medicated than cold, principally because it requires less constant renewal. Astringents, such as sulphate of zinc, sugar of lead, tannin, &c., may be dissolved in it. Deodorants — chloride of soda, permanganate of potassa, &c., — may be added to it, in greater or less proportion, for the dressing of offensive sores, bad-smelling feet, &c.

28. BATHS, &c.

No. 132. The Cold Bath.

A cold or cool bath, once or twice a week, is beneficial for persons in health. A wash-bowl of water, soap, sponge, and coarse towel, are all the articles required in taking it. Rub the whole surface of

the body well, with the sponge, saturated with the soap and water, after which, rub the whole body briskly with the coarse towel, until dry.

No. 133. Warm Bath.

Have the water of such a temperature as to feel warm to the hand. In cases where the health is poor, and little or no reaction follows he use of the cold bath, this may be substituted.

No. 134. Alkaline Bath.

Take of Bicarbonate of Soda, or Saleratus, . 1 ounce.
Water, warm or cool, ... 2 quarts.
Mix. Useful in fevers, itching of the skin, &c.

FOMENTATIONS.

Fomentations, used warm, or hot, are good counter-irritants. They may be made by dipping a piece of flannel, folded several times, in warm or hot water, allowing it to remain three to five minutes, and then wringing it nearly dry. It should be of sufficient size to well cover the part to which it is applied. A piece of oiled silk or a dry cloth may be placed over it, to prevent evaporation. Fomentations should generally be about as hot as the patient can bear, where active counter-irritation is indicated, and must be renewed every ten or fifteen minutes. In pleurisy, congestion of the lungs, lung fever, and inflammation of the bowels, oil of turpentine may be gently applied to the parts, before applying the hot cloths; or it may be sprinkled upon them.

29. MISCELLANEOUS RECIPES.

No. 135. Tooth-Ache Drops.

Take of Mastic, ... 1 drachm.
Chloroform, ... 1 ounce.
Mix. Moisten with the solution cotton enough to fill the cavity of the tooth, and press it well in.

No. 136. Another.

Take of Oil of Cloves, ... 1 drachm.
Chloroform, ... 1 drachm.
Mix. Use as directed above. Oil of cloves alone is excellent.

No. 137. Another.

Take of Gum Camphor, ... ½ ounce.
Strongest Alcohol, ... 1 ounce.

Mix in a mortar, and rub until the camphor is dissolved. Use as above.

No. 138. Tooth Powder.

Take of Prepared Chalk, ... 1 ounce.
Powdered Orris Root, ... 1 ounce.
Powdered Castile Soap, . . . 2 drachms.

Mix. Use after breakfast and supper.

No. 139. Another.

Take of Powdered Orris Root, ... 1 ounce.
Powdered Peruvian Bark, . . . 1 drachm.
Powdered Gum Myrrha, . . . ½ drachm.
Powdered Cinnamon Bark, . . . 1 drachm.
Bicarbonate of Soda, ... 1½ drachms.

Mix. Use as above.

30. PREPARATIONS FOR THE HAIR.

No. 140. Hair Oil.

Take of Castor Oil, ... 2 ounces.
Glycerine, ... 2 drachms.
Cologne Spirit, ... 2 ounces.
Oil of Bergamot, ... 1 drachm.
Oil of Rose, ... 4 drops.

Mix.

No. 141. Another.

Take of Olive or Castor Oil, ... 3½ ounces.
Glycerine, ... 2 drachms.
Oil of Jessamine, ... 1 drachm.
Oil of Orange, ... 1 drachm.

Mix.

No. 142. Hair Restorative.

Take of Sugar of Lead, ... ½ drachm.
Lac Sulphur, ... 1 drachm.
Glycerine, ... 3 drachms.
Rose Water, ... 3½ ounces.

Mix. To be applied to the scalp with a brush, once or twice a day.

No. 143. Another.

Take of Aromatic Spirit of Ammonia, . . 2 drachms.
Tincture of Cantharides, . . . 2 drachms.
Glycerine, ... ½ ounce.
Rose Water, ... 3 ounces.

Mix. Use twice a day, and rub well into the scalp with a brush. Excellent for baldness and falling off of the hair.

No. 144. Cologne.

Take of Oil of Verbena, ... 1 drachm.
Oil of Citronella, ... 1 drachm.
Oil of Bergamot, ... 1 drachm.
Cologne Spirit, ... 1 pint.

Mix.

No. 145. Another.

Take of Oil of Jessamine, ... 1 drachm.
Oil of Neroli, ... ½ drachm.
Oil of Lemon, ... ½ drachm.
Oil of Bergamot, ... 1 drachm.
Oil of Rose, ... 16 drops.
Cologne Spirit, ... 1 pint.

Mix.

ADDITIONAL MEDICINES.

No. 146. Quinine Mixture.

Take of Sulphate of Quinia, ... 32 grains.
Aromatic Sulphuric Acid, . . . 1 drachm.
Pure Water, ... 2 ounces.

Mix. A good tonic, in doses of one teaspoonful, three times a day. As an anti-periodic, in intermittent fever, it may be given in teaspoonful doses every hour, commencing six hours before the expected paroxysm or chill. Give in a little water.

No. 147. Solution of Tannin.

Take of Tannic Acid, ... 1 drachm.
Water, ... 1 pint.

Mix. This may be used two or three times a day, as a vaginal injection, in profuse menstruation, leucorrhœa, &c. The strength of the solution may be increased every day or two, if necessary, by adding more tannin to the water.

No. 148. Nitro-Muriatic Acid Mixture.

Take of Diluted Nitro-Muriatic Acid, . . ½ ounce.
Pure Water, ... 1½ ounces.
Simple Syrup, ... 2 ounces.

Mix. An adult may take one teaspoonful, in a wineglass of water, three times a day. An excellent remedy in some chronic affections of the liver. It is also useful in some forms of syphilitic disease.

No. 149. Compound Rhubarb Pills.

Take of Powdered Rhubarb, ... 1 ounce.
Powdered Socotrine Aloes, . . . 6 drachms.
Powdered Myrrha, ... ½ ounce.
Oil of Peppermint, ... ½ fluid drm.

Mix thoroughly, adding a little water to form a pill mass; to be divided into two hundred and forty pills. This is a warm tonic laxative, useful in costiveness with debility of the stomach. From two to four pills, or from ten to twenty grains of the mass, may be taken twice a day.

No. 150. Mixture of Green Iodide of Mercury and Iodide of Potassium.

Take of Green Iodide of Mercury, . . . 3 grains.
Iodide of Potassium, ... 2 drachms.
Compound Tincture of Gentian, . . 2 ounces.
Compound Syrup of Sarsaparilla, . . 2 ounces.

Mix. Take a teaspoonful three times a day, in a wineglass of water, after meals. An excellent remedy in syphilis, primary and secondary, and various skin diseases, as well as an excellent alterative in follicular laryngitis, and ulcerations of the epiglottis.

No. 151. Blue Pill. Mercurial Pill.

This is supposed to exert a decided influence over the liver, by increasing the flow of bile. In affections of the liver, such as torpidity, or want of proper action in that organ, a three to five grain pill may be taken with much advantage, once or twice a week, at bedtime, followed by a Rochelle powder, or dose of castor-oil, in the morning. This pill should never be used except when really indicated.

No. 152. Calomel.

This is considered one of the most efficient and valuable preparations of mercury, but requires to be used with much caution and

judgment. In skilful hands, it is adapted to cure or relieve some of the most formidable diseases.. In this work, I have occasionally recommended its employment, but cannot advise non-medical persons to make much use of it.

The following pills may be used to advantage, as a substitute for mercurials, in some complaints usually denominated "*bilious.*"

No. 153.

Take of Podophyllin,	6 grains.
Leptandrin,	12 grains.
Compound Extract of Colocynth,	48 grains.
Extract of Belladonna,	6 grains.
Oil of Peppermint,	4 drops.

Mix, and divide into twenty-four pills.

Dose, for an adult, as a cathartic, one to three; as an alterative, one every night, or every second night, according to the effect produced.

No. 154. Composition Powder.

Take of Powdered Bayberry Bark,	4 ounces.
Powdered Ginger,	6 ounces.
Powdered Cayenne Pepper,	½ ounce.
Powdered Cloves,	2 drachms.
Powdered Cinnamon Bark,	2 drachms.

Mix. Dose, for an adult, one teaspoonful. It should be steeped for half an hour, in a teacupful of boiling water, and drank warm. The feet should at the same time be well soaked in warm water. Useful for chilliness, after exposure to cold.

No. 155. Hot Drops.

Take of Cayenne Pepper,	½ ounce.
Gum Myrrh,	1 ounce.
Alcohol, or Brandy,	1 quart.

Mix. Let it stand one to two weeks, then strain or filter through paper. Dose, for an adult, from half a teaspoonful to a teaspoonful. It may be taken in a little water. Used for griping pains in the bowels, arising from wind, &c. It is also used externally, as a liniment, for chronic rheumatic pains. The "composition powder" and the "hot drops" are known as Thompsonian medicines.

No. 156. Chalk Mixture.

This mixture, which is to be found in all apothecary stores, is much used in the diarrhœa of children. The dose for a child a year

or two old is about a teaspoonful, and may be repeated two or three times a day.

No. 157. Diarrhœa Mixture.

Take of Chalk Mixture, ... 3½ ounces.
Tincture of Catechu, ... 3 drachms.
Laudanum, ... 1 drachm.

Mix. Dose, for an adult, one tablespoonful: to be repeated three or four times a day. Children may take from half a teaspoonful to a teaspoonful or two, according to age.

No. 158. Another.

Take of Lime Water, ... 2 ounces.
Fluid Extract of Hardhack, . . . 1 ounce.
Mucilage of Gum Arabic, . . . 6 drachms.
Laudanum, ... 2 drachms.

Mix. Dose, for an adult, one tablespoonful; for children, one half teaspoonful to a teaspoonful. It may be repeated three or four times a day.

No. 159. Ointment of Iodide of Sulphur.

Take of Iodide of Sulphur, ... ½ drachm.
Lard, ... 1 Troy ounce.

Rub the iodide of sulphur, first reduced to a fine powder, with a little of the lard, then add the remainder and thoroughly mix them.

This is an excellent local remedy for skin diseases, unattended with inflammation; and is especially useful in psoriasis, lepra, porrigo, and the very advanced stages of eczema and impetigo, when they have become dry.

No. 160. Ointment of Iodide of Lead.

Take of Iodide of Lead, ... 1 drachm.
Lard, ... 1 ounce.

Rub them together until thoroughly mixed. Useful as a discutient in chronic glandular swellings, enlargements of joints, &c.

No. 161. American Hellebore (*Veratrum Viride.*)

This is an *arterial sedative*, and is used by many physicians in fevers and inflammations, characterized by a rapid, full, and hard pulse. The *tincture* is the preparation generally employed. The commencing dose should not exceed eight or ten drops. It may be

repeated every third hour, until the force and frequency of the pulse have become reduced to nearly the healthy standard. If too large doses are given, or a small one too frequently repeated, nausea and vomiting may be induced. In acute rheumatism, pleurisy, the *first stage* of lung fever, and in inflammatory fever, this medicine, when administered, and its effect upon the pulse and disease carefully watched by a skilful physician, may do much good. Non-medical persons are not qualified to use it to much advantage.

ANÆSTHETICS.

No. 162. Sulphuric Ether, Chloroform, and Nitrous Oxide.

These agents, in the form of vapors, administered by inhalation, are used to produce general anæsthesia, or insensibility to pain during surgical operations.

CHLOROFORM is little used in this country, being more dangerous than ether, many cases of death from its use having occurred. It has been administered internally, in doses of thirty to sixty drops, suspended in mucilage of gum arabic, in some cases of colic, sea-sickness, &c., with apparent benefit.

THE NITROUS OXIDE, for short surgical operations, as the extraction of teeth, &c., is now considered safe and reliable. It is much used by dentists.

SULPHURIC ETHER is the agent chiefly used in this country, especially for long and severe surgical operations, and other cases where it is advisable to keep the patient in a state of insensibility for some hours, as in puerperal convulsions, &c. Its effects, when inhaled, are, first exhilaration, then violent excitement, and finally complete insensibility. About two fluid ounces will generally be required for an adult, but some persons are more susceptible to it than others, and much more, of course, will be given if the insensibility is kept up for a length of time. Nausea and vomiting of whatever may be in the stomach, are usually observed as the patient revives. Consciousness is soon recovered, but there is, for several hours, a state of more or less mental confusion, and an odor of ether may be perceived in the breath for several days. Altogether, the symptoms are much like those of alcoholic intoxication, but are less lasting, and pass in quicker succession. Nor is there so great a degree of ensuing depression; headache also is infrequent after the

inhalation of ether. No case of death from the moderate use of this agent is on record. It is inflammable, and should not be administered anywhere near a lamp, candle, or gas light.

MODE OF ADMINISTRATION.

Sulphuric ether is usually poured into the hollow of a cone-shaped sponge, previously wrung out of water. To prevent waste by evaporation, a towel is placed over the sponge. It is desirable to have as little air as possible mixed with the inhaled ether. The person administering it should stand behind the patient's head, grasping it between his open hands, and steadying the sponge — applied over the nose and mouth — between his thumbs and fore-fingers; thus, after the first gradual approach of the sponge, making it next to impossible for the patient to get his face away from it, and at the same time avoiding all risk of squeezing the sponge and wasting the ether. At the same time it is advisable to urge the patient to blow through the sponge, in order to obtain the succeeding deep inspiration. Complete etherization is indicated by total loss of voluntary motion, relaxation of the muscles of the extremities, and absence of pain when the conjunctiva is touched. A patient may be safely kept under its influence so long as the breathing is not stertorous; the sponge may be withdrawn, at short intervals, and reapplied so long as it may be necessary to keep the patient in a gentle slumber. Neither of these agents should be administered to any one laboring under serious organic disease of the brain, heart, or lungs, especially the two former. No non-medical person should attempt to etherize a patient, when a physician can be readily obtained.

THE MEDICATED VAPOR INHALER.

This is used for the inhalation of medicated vapors, in the treatment of chronic bronchitis, asthma, and consumption. Price, $1.

THE NASO-PHARYNGEAL SYRINGE.

This is a shower syringe, with extra long silver tube, curved at the end, so as to readily pass into the posterior nasal passages, behind the uvula. It is used in the treatment of chronic catarrh, affecting the nasal passages, and pharynx or throat. Price, in box,

$5.00. The Medicated Vapor Inhaler and Naso-Pharyngeal Syringe will be forwarded, by Express, to any part of the country, on receipt of price.

MEDICINE CHEST.

It is well for every family, residing far from a physician, and all travellers, seamen, miners, &c., to have some kind of a *Medicine Chest*, containing such articles as are most useful in cases of sudden sickness or accident.

The *chest* may be made of any kind of wood, and of any size and form which the party ordering it may like. Any trunk-maker, cabinet-maker, or carpenter can construct it, if you give him a clear idea of what size you prefer, and what you wish it to contain. One two feet long, fifteen inches wide, and one foot deep, will contain about all which will be necessary. If it has a lock-drawer at the bottom, divided into two or more compartments, it will be found very convenient. The body of the chest, above the drawer, should be divided into large and small compartments, for vials, packages, utensils, &c. All liquids should be kept in glass stoppered vials; powders and salts in "salt-mouths," with glass stoppers. Ointments may be kept in earthen or porcelain pots, or tin boxes.

The chest should be supplied with the following articles, viz.: —

1. Apothecaries' Scales and Weights, in box.
2. A two-ounce Glass Graduated Measure.
3. A Medicine Glass, for measuring teaspoonfuls and tablespoonfuls of liquids.
4. A Porcelain slab, about six by eight inches in size, on which ointments and pills can be made.
5. A one-half pint Glass Mortar and Pestle.
6. Two Apothecaries' Knives (spatulæ), for mixing ointments, making pills, spreading plasters, and dividing powders.
7. A one-half pint glass tunnel or funnel.
8. A Davidson Syringe.
9. A hard-rubber Ear Syringe.
10. A No. 7 Elastic Male Catheter.
11. A Silver Female Catheter.
12. Three suture needles, — large, small, and medium size.
13. A lancet.
14. Artery forceps.

15. Small Scissors.
16. Lint.
17. Sponge.
18. Adhesive Plaster.

Now we come to speak of the medicines necessary to complete the outfit. The variety and quantities necessary will depend something upon the ease with which the stock can be replenished. I will refer by numbers, to such medicines in the Recipe Department, as I deem the *most essential* for completing the outfit. 1, 4, 5, 6, 7, 13, 20, 21, 22, 26, 35, 44, 49, 50, 51, 59, 62, 63, 65, 67, 71, 72, 74, 75, 76, 78, 80, 81, 84, 85, 86, 87, 89, 106, 109, 113, 115, 119, 120, 123, 135, 137, 138, 146, 147, 153. Take as many more as you desire, or as your chest will contain. They should all be correctly labelled, and the uses and doses should be plainly stated. When doses have been mentioned in the preceding pages, they have been, as before remarked, for *adults*, unless otherwise stated.

CHAPTER II.

DIETETIC PREPARATIONS AND BEVERAGES FOR THE SICK.

THE importance of an acquaintance with those preparations of diet, peculiarly designed for patients during disease and convalescence, is so obvious, that it requires little or no comment.

The rules to be observed in giving nourishment to the sick, will generally present themselves; but there is one in particular which should not be overlooked. In all low diseases care should be taken not to give too much at once, but frequently to repeat a small proportion. The lapse of a very short time without food will frequently, in cases of great prostration, reduce the patient very low, and may endanger his life. This rule applies to acute diseases.

Barley Water.

Take of Pearl Barley, ... 2 ounces.
Boiling Water, ... 2 quarts.

Before adding the boiling water, let the barley be well washed. Then boil it to one half, and strain the liquor. A little lemon-juice and sugar may be added, if desirable.

To be taken freely in fevers and inflammatory diseases.

Rice Water.

Take of Rice, ... 2 ounces.
Let it be well washed, and then add to it
Water . . . . . 2 quarts.

Boil for an hour and a half, and then add as much sugar and nutmeg as may be required. To be taken freely in fevers.

Flaxseed Tea.

Take of Flaxseed, ... 1 ounce.
Boiling Water, ... 1 pint.

Pour the boiling water on the unbruised seed, cover the vessel,

and let it stand near the fire for an hour or two. The seeds must not be crushed or boiled, lest the oil in the interior be extracted. Having strained the infusion, add to it a little lemon-juice, if no contra-indicating circumstances exist. Flaxseed is a mild demulcent, and is much used in diseases of the throat, chest, and urinary passages.

Toast Water.

Cut a slice half an inch thick, from a loaf of stale bread; remove the crust, and carefully toast the slice on both sides. Place the toast and a small piece of orange or lemon-peel in a suitable vessel, add a pint of boiling water, cover the vessel, and, when cold, strain off the water. This forms an agreeable drink in fevers.

Gum Arabic Water.

As an article of diet, the proper proportions are one ounce of gum arabic to a pint of boiling water. The solution is allowed to cool before it is used.

Gum arabic is very nutritive, and life can be sustained on it alone for some time.

Lemonade.

Take of Fresh Lemon Juice, ...	4 ounces.
Fresh and very thin Lemon Peel, . .	½ ounce.
White Sugar, ...	4 ounces.
Boiling Water, ...	3 pints.

Let them stand until cold, then strain off for use. When employed in fevers, a little sweet spirit of nitre is sometimes added, but I prefer to give them separately.

When fresh lemon-juice cannot be procured, an excellent lemonade can be prepared from lemon syrup, made as follows: Dissolve ten drachms of tartaric or citric acid, and eight pounds of loaf sugar, in a gallon of water. Then rub from half a drachm to a drachm of fresh oil of lemon with a portion of the syrup, and afterwards carefully mix it with the remainder.

Lemonade, when freely taken, sometimes produces pain in the bowels. It must, therefore, be used with some reserve as a daily drink.

Oatmeal Gruel.

Rub two ounces of oatmeal into a paste with a little cold water, and then gradually add a quart of boiling water. Let the whole boil

fifteen minutes, stirring frequently. Add a little salt, remove from the fire, and sweeten to taste.

If no reason to the contrary exists, the flavor of the gruel is much improved by adding some nutmeg, with wine or brandy, or a few raisins.

Indian Meal Gruel.

Indian meal gruel is made in the same manner as oatmeal gruel. It is necessary, however, to boil it a few minutes longer.

Rice Flour Gruel.

Take of Ground Rice,	1 ounce.
Cinnamon,	1 drachm.
Boiling Water,	1 quart.

Having rubbed the rice flour into a paste with a portion of the water, add the remainder gradually, and boil for forty minutes, adding the powdered cinnamon near the conclusion. Strain and sweeten. Wine may be added if necessary.

Panada.

Take of Wheat Bread,	1 ounce.
Powdered Cinnamon,	1 drachm.
Water,	1 pint.

Boil them until well mixed, then add a little grated nutmeg and sugar. Wine or butter may be added, if desirable.

Sago.

Take of Sago,	2 tablespoonfuls.
Water,	1 pint.

Boil gently until it thickens, frequently stirring. Wine, sugar, and nutmeg may be added, according to circumstances.

Tapioca Jelly.

Take of Tapioca,	2 tablespoonfuls.
Water,	1 pint.

Boil gently for an hour, or until it assumes a jelly-like appearance. Add sugar, wine, and nutmeg, with lemon juice, to suit the taste of the patient and the nature of the case.

Arrowroot.

Take of Arrowroot,	1 tablespoonful.
Cold Water,	sufficient.
Boiling Water,	½ pint.

Mix the arrowroot with just enough cold water to soften the lumps, then pour on the boiling water, and stir constantly, until the solution is gelatinous and transparent. Sweeten to the taste, and grate in a little nutmeg.

Maizena, or Corn Starch.

To one quart of boiling milk add, gradually, four tablespoonfuls of the starch, previously rubbed into a paste with a little cold milk; then add some salt, and boil for five minutes, stirring briskly. Sweeten to the taste, and flavor with essence of vanilla, lemon, or orange. Then set aside to cool.

Boiled Flour.

Take of fine Flour, ... 1 pound.

Tie it up in a linen cloth as tight as possible, and after frequently dipping it in cold water, dredge the outside with flour till a crust is formed round it, which will prevent the water soaking into it while boiling. It should then be boiled until it becomes a dry mass. Two or three tablespoonfuls of this may be grated, and prepared in the same manner as arrowroot, for which it forms an excellent substitute.

Vegetable Soup.

Take one turnip, one carrot, two potatoes, and one onion. Let them be sliced, and boiled in one quart of water for an hour. Add as much salt as is agreeable, flavor with a small portion of pot-herbs, and pour the whole upon a piece of dry toast. This preparation forms an agreeable substitute for animal food, and may be given when the latter is inadmissible.

Mutton Broth.

Select two tender mutton chops, put them into a saucepan, add one quart of cold water and a little salt, cover the pan and cook slowly for two hours. Then skim off all the fat, and add one tablespoonful of rice, one white potato, one turnip, and a little parsley, chopped fine. Simmer for three quarters of an hour, then pour into a bowl, and remove the chops, and all of the remaining fat. This broth is nutritious and palatable.

Beef Tea.

Take of Lean Beef, cut into shreds, . . . 1 pound.
Cold Water, ... 1 quart.

Heat slowly to the boiling point, and then boil twenty minutes, taking off the scum as it rises. Strain the liquor, and add salt according to the taste. This preparation is more nourishing than ordinary broths, and very palatable.

Liebig's Beef Tea.

"One pound of lean beef, free of fat, and separated from the bones, in the finely chopped state in which it is used for mince meat, is uniformly mixed with its own weight of cold water, slowly heated to boiling, and the liquid, after boiling briskly for a minute or two, is strained through a towel, from the coagulated albumen and fibrine, now become hard and horny. Thus we obtain an equal weight of the most aromatic soup, of such strength as cannot be obtained, even by boiling for hours, from a piece of flesh." This is to be seasoned to taste.

Essence of Beef.

Put a sufficient quantity of lean beef, sliced, into a porter-bottle to fill up its body, cork it loosely, or not at all, and place it in a pot of cold water, attaching the neck to the handle of the vessel, by means of a string. Boil for an hour and a half or two hours, then decant the liquid and skim it.

To this preparation may be added spices, salt, wine, brandy, &c., according to the taste of the patient and nature of the disease.

Calves'-Feet Jelly.

Take a set of four feet, break them into small pieces, add to them one gallon of water, and reduce by boiling to one quart. Strain, and when cold, skim the fat entirely off. Add to this the shells and whites of six eggs, well beaten, a pint of wine, a pound of loaf sugar, and the juice of four lemons, and let them be well mixed. Boil the whole for a few minutes, stirring constantly, and then pass the jelly through a flannel strainer. This forms a very nutritious article of diet for the sick and convalescent.

Blanc Mange.

Boil one ounce of shred gelatine in a quart of milk, for a few minutes, stirring constantly. Sweeten to the taste, flavor with peach-water or essence of vanilla, and strain into a mould.

Chicken Water.

Take one half of a chicken, divested of all fat, and break the bones; add to this half a gallon of water, and boil for half an hour. Strain, and season with salt. A nutritious drink.

Mucilage of Starch.

Take of Starch, ...	1 ounce.
Powdered Cinnamon, ...	1 drachm.
Gum Arabic, ...	1 ounce.
Boiling Water, ...	3 pints.

Boil until reduced one third, and strain. The above may be taken for a common drink in dysentery.

Mulled Wine.

Take two drachms of bruised cinnamon, half a nutmeg, grated, ten bruised cloves, and half a pint of boiling water. Infuse one hour, strain, and add of hot port or sherry wine (or good domestic wine) one pint, and white sugar, one ounce. Mix. This is a mild, stimulant drink, used in convalescence from low forms of disease.

Wine Whey.

Heat half a pint of milk to the boiling point, and, when boiling, add a gill of sherry or Madeira wine. Let it boil again, and then remove from the fire, and let it stand a few minutes. Then remove the curd, pour the whey into a bowl, and sweeten it. A little sugar and nutmeg may be added if desired. This is a mild and very useful stimulant, and may be used in diseases where there is great debility; the dose to be regulated by the circumstances of the case: from a gill to a pint or more may be taken during the day.

MEDICAL NOTICE.

THE undersigned, in addition to attending to general family practice, gives particular attention to the treatment of *Diseases of the Air Passages and Lungs, — Chronic Catarrh, Chronic Bronchitis, Asthma, and Consumption,* — making use of INHALATIONS OF MEDICATED VAPORS AND ATOMIZED LIQUIDS, in connection with other appropriate measures.

Attention is also given to *Female Complaints, Diseases of the Urinary and Genital Organs, Skin Diseases, Dyspepsia, Scrofula, Rheumatism,* and all Chronic Diseases.

Letters, inquiring in regard to treatment, &c., and containing a return postage stamp, promptly answered. Patients from a distance, when required to remain in the city for a short time, can readily obtain good boarding places.

OFFICE, No. 90 AVON STREET,
(Leading from No. 262 Washington Street).
Residence, 86 Cambridge Street.

OFFICE HOURS — From 10 to 12, A. M., and 2 to 4, P. M.
Sundays and Holidays, from 10 to 12, A. M.

A. I. FENN, M. D.

BOSTON, April, 1870.

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